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SCHOOL HEALTH PROGRESS

Previous Health Education Conferences

Called by the Child Health Organization of America

Lake Mohonk, New York, June, 1922

Called by the American Child Health Association

San Francisco (International), June, 1923

Cambridge—Massachusetts Institute of Technology, June, 1924

Chicago—University of Chicago, June, 1925

CO-WORKERS AT THE CONFERENCE

SCHOOL HEALTH PROGRESS

As Recorded at the Fifth Health Education Conference
Arranged by the American Child Health Association
and held at Sayville, Long Island, June 17-22, 1929.

" . . . as we look back from some distant time in the future we will regard these early conferences and the publications thereof as the real genuine source books of health education in this country."

Dr. John M. Sundwall

American CHILD HEALTH Association
370 Seventh Avenue, New York
1930

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Printed in the United States of America by
J. J. LITTLE AND IVES COMPANY, NEW YORK

FOREWORD

HOW can the present knowledge of child development be used in guiding the steps which we should take in developing a curriculum for health? How can we coördinate and correlate our school activities and services to secure a maximum of functioning of these in relation to the health of children? These two topics were found upon careful inquiry by the American Child Health Association to be common problems of all three levels of education, elementary, secondary, and teacher training, and letters from health workers showed a recognized need to discuss both.

Therefore the Sayville Conference on Health Education was set up in three sections—the Elementary, Secondary, and Teacher Training Sections—to facilitate a focusing of attention on these problems at each separate educational level.

Readers of this record of the Fifth Health Education Conference, held at Sayville, will not find in it finished solutions to the problems involved in securing to students health in greater measure as a result of their education in elementary, secondary, and teacher training schools. What readers may find is perhaps indicated in the words of some of those attending the conference itself.

"The most encouraging fact of the conference," said one member, "was to know that so many fine leaders were in the field, working seriously on this problem of child health. There was so much more looking forward, and with larger vision of the whole situation, than I had anticipated. It seems to me there will be great strides ahead within the next few years." Another remarked, "I was impressed by the unanimity of thought which bound together physicians, nurses, health workers, physical education teachers, and nutritionists, in the big cause of health education."

Whatever special interest the reader may represent, he is invited to consider these records from his own point of view. It is hoped that he will find, in this pooling of thoughts, ideas which because of their breadth and soundness will help him constructively.

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SCHOOL HEALTH PROGRESS

AT WORK IN GENERAL SESSION

Larger Aspects of the School Health Problem

". . . . the theme of the conference is largely stated in the titles of two speeches, 'Determining the Health Needs of Children' and 'Research in Child Development and the School Curriculum.' "

Dr. John M. Sundwall.

A BRIEF review of the history of the health education conferences, a consideration of the health needs of children from the pediatrician's standpoint, and relations of research in child development to the school curriculum as seen from the school angle, were among the subjects of addresses* by authorities in their several fields given at the opening session of the Fifth Health Education Conference arranged by the American Child Health Association, and convened at the Hotel Cedarshore, Sayville, Long Island, Monday evening, June 17, 1929.

Dr. John M. Sundwall, who presided as general chairman, said in opening the conference, "In acting as chairman I am, in a very large measure, a substitute for Dr. Wood, in view of the fact that he is at the present moment in Europe." Before introducing the speakers the chairman traced his own personal interest in this and preceding child health conferences and stressed the increasing significance of health education as representing "one of the sound movements in this country relative to the conservation of health."

Dr. John M. Sundwall, Professor and Director, Hygiene and Public Health, University of Michigan, Ann Arbor, Michigan:

I recall my introduction to the particular agency of the American Child Health Association interested in developing and

* In recording the proceedings of the conference, every effort has been made to retain the substance of each speaker's address, in his own words, while meeting necessary space limitations.

sponsoring health education. It took place at a meeting at Cleveland, somewhere about 1922, as I recall, or 1923. It happened that my training was largely along scientific lines. I was somewhat interested in attending this particular meeting, and in this new term "health education." Since then it has been my good fortune to see this movement grow and develop.

When we look back and see the accomplishments, what has been done, we cannot but feel that this is one of the greatest movements of modern times. It differs much from the experience of a particular group that at one time was attempting to scale Pike's Peak. After going up a certain distance they met someone coming down and asked this person with a great deal of interest, "How far is it to the top?" This person answered, "About five miles."

The group continued, walked for a certain distance and became almost exhausted. They met a second person coming down and said to him, "How far is it to the top?" "Well," he said, "I think it is about five miles."

Then they went on until they were utterly exhausted and they asked a third person whom they met coming down, "How far is it to the top?" "Well," he said, "It is about five miles if I give my opinion."

One of the persons in the group fell down and he said, "Thank God we are holding our own."

Workers cannot see their own progress. An occasion like this shows us that we have done more than hold our own. Furthermore, I know as we look back from some distant time in the future, we shall regard these early conferences and the publications thereof as the real genuine source books of health education in this country.

The address of welcome will be given by Mr. Edgar Rickard.

Mr. Edgar Rickard, Vice President and Member of the Executive Committee of the American Child Health Association, New York:

As a member of the executive committee of the American Child Health Association I bid you a cordial welcome. I have been associated with this organization from its inception, and in fact when Mr. Hoover was considering tentative plans for its

formation, I pleaded with him, as a volunteer, to find a place for me in its activities. When I refer to Mr. Hoover and the American Child Health Association, it is appropriate to recall to your minds the relief work for which he was responsible in Europe, as it has a direct bearing not only upon the very existence of this organization, but upon the shaping of its very similar policies.

Those of us who were associated with Mr. Hoover in relief work abroad were constantly reminded that it was an emergency job. Frugality and simplicity in distribution of relief, coupled with economical management, kept it well within the means and ability of the local authorities to continue, and in many places, notably Poland, the child feeding organizations we started are still operating with success.

In the end, not only did some considerable funds remain, which accounts for the substantial subsidy of several hundred thousand dollars per annum making possible the activities of the American Child Health Association, but experience in relief work abroad proved the worthwhileness of considering the American Child Health Association, also, as an emergency organization and that the resultant recommendations should be practical in their application for general use. Mr. Hoover considers that the protection of health and the prevention of disease should be a definite national, state, or municipal responsibility and that it is a proper function of the American Child Health Association and such volunteer groups to educate the people of the United States to understand that a part of taxation returns must be directed toward the improvement of health conditions and the prevention of serious childhood ailments. He believes that eventually—it may be years—our people will look upon the matter of health as they look upon our organized education, and, as you educators know, it was no small task in the initial stages of education to bring about the universal acceptance of our free institutions of learning and compulsory attendance. He does not believe that such work as that of the American Child Health Association and other voluntary child health agencies should be a permanent charge on private benevolence.

Child Health and the General Public

I was struck by one suggestion in the list of purposes for which you have gathered here, and that is that the result of your discussions shall be available to those not attending. This, it seems to me, should be the keynote of this meeting. Every move that you make should not only be constructive, but should aim toward better understanding by the layman.

I have been fascinated with the results obtained from some of the technical work which our own Association has been doing, particularly in the School Health Study. The first of the series of documents resulting from this survey is now available and gives promise, taken as a whole, to be one of the most useful efforts that has been made in many years to translate what has been well known in general terms into exact knowledge and formulæ which can be applied with certainty of results.

I take it that the big problem before you today is to translate this precise knowledge you are assembling into language we can understand. Make your findings here available to the public and see to it that you create in the public mind a conscience that clearly dictates the responsibility of every individual for child health, either by performance or contribution in support of its better understanding.

I welcome you and know that you are going to give the splendid results which everyone expects.

"I want to thank Mr. Rickard on behalf of this conference for the advice he has given us, and for bringing to us a message from President Hoover," said Chairman Sundwall. "I have known the next speaker, Dr. S. J. Crumbine, for many years. I met him first in Kansas where he was Commissioner of Health and Dean of the Medical School of the University of Kansas. Then and ever since then I have had the very highest regard for his accomplishments and the very warmest personal feeling for him. Dr. Crumbine will speak to us on 'Health Education Conferences Past and Present.'"

Dr. S. J. Crumbine, General Executive, American Child Health Association, New York:

On behalf of the professional staff of the American Child Health Association I wish to extend our most cordial welcome

to this health education conference, the fourth of its kind held under the auspices of the American Child Health Association, the first one having been held under the Child Health Organization.

Four years have intervened since the last conference. It might be desirable, therefore, to review briefly the history of these health education conferences.

Everybody realized in 1920 that one of the outstanding difficulties in the then new movement in health education, was an almost entire lack of anything approaching standards of procedure. Various specialists, in addition to regular school personnel, were all working in more or less watertight compartments each toward his own objective, if he had such a thing as an objective, entirely independent of other workers in the same field. It was thought that in order to crystallize opinion out of which might be formulated something approaching standards of procedure, a conference of this sort should be called and, accordingly, the Child Health Organization called a first conference on health education, to which were invited physicians, nurses, teachers, principals and superintendents, and specialists in home economics, physical education, and science.

The result of the first conference was so productive that in 1923 when the present American Child Health Association was organized, it was thought this service should be continued. Conferences were arranged, 1923 in San Francisco, 1924 in Cambridge, and 1925 in Chicago. There was tremendous national interest evinced. I think this can best be illustrated when I tell you that we booked over seven hundred requests for the report of the conference in Chicago before it occurred, and these requests came from every state in the Union excepting two, from three of our territorial possessions, and from six foreign countries.

These published reports of the conferences have been widely used as source material in universities and teacher training institutions, and as textbooks, particularly for the training of leaders.

The Chicago conference contributed in the shape of recommendations a detailed formulation of some of the most urgent

needs facing the workers in this field that had to be met before further progress could be made. It is interesting to note that a number of these recommendations have been taken up as studies under university direction.

Research a Major Project

And so the American Child Health Association embarked on one of the principles that was so universally enunciated at the Chicago conference, namely, that before much future progress could be made in child health, there was need for a great deal of research on certain problems. Shortly after the Chicago conference, our President, Mr. Hoover, said to me one day when I was conferring with him in Washington, "Doctor, how are the schools in America meeting the health needs of the American school child?"

I replied that while we knew something about what certain schools were doing, the information was not available as to how the American public schools were meeting the health needs of the American child.

"Do you think this information could be obtained?"

"Undoubtedly, but this would be an exceedingly difficult task to undertake," I said.

Mr. Hoover, however, requested us to investigate the possibilities and make a report. This we did after a conference with a large group of educators in New York in the spring of 1925. I thought the enormity of the task and its cost, indicated by this report, would discourage him, but his response was, "Go ahead."

Thus we have been devoting ourselves during the past three years as our major project to the research task which, for the lack of a better name, we have called the School Health Study, and there has been planned for the conference a discussion of this study*, in which, I am sure, many of you are keenly interested.

The outcome of this conference depends upon the group

* The presentation given by Dr. Franzen is not printed here as the content is published elsewhere in monographs of the School Health Study.

here assembled. I hope and believe that we shall have a productive, useful session.

"Personally, I have been very much interested in the contributions that pediatrics is making to this modern health education movement," said the Chairman in introducing the next speaker. "It is fitting that this particular profession which is contributing so much to this movement is represented here. What are the health needs of children at the present time? Dr. Bronson Crothers will speak on 'Determining the Health Needs of Children.'"

Dr. Bronson Crothers, Instructor in Pediatrics and Neurology, Harvard University, Cambridge, Massachusetts:

None of us at this meeting have the slightest doubt that the general acceptance of our own point of view by school boards and parents would benefit the oncoming generation enormously. Each of us feels so sure of this obvious fact that we are tempted to devote much of our time to energetic missionary work. This missionary work is frequently fostered by benevolent individuals or by foundations so that a number of us are enabled to spend most of our time explaining the validity of our ideas without the rather tedious necessity of working them out under unfavorable circumstances.

Clearly ideal conditions are difficult to obtain, ideal workers are relatively few, and sustained enthusiasm is rare beyond belief. Even if we, as users of special technique, are as good as we think we are, it is entirely clear that most of the children of this country must be cared for by less highly trained individuals working under conditions far from ideal.

Two things seem to me quite clear. In the first place, those of us who are highly trained in one specialty must become familiar with other aspects of child welfare work, and second, we must make intelligent efforts to enable other workers to use our results and to borrow suitable parts of our technique.

General Practitioner versus Specialist

The experience of the medical profession during the last few decades may well be of value to this group. Thirty years or so ago general practitioners abounded and looked with

skepticism upon the expensive specialists. Technical improvements in medicine and surgery then began to be introduced with great rapidity until the mass of medical data became so great that no one individual could master it. The easy alternative was to divide and subdivide the field until the sophisticated patient demanded the services of a whole committee of doctors. Gradually it has dawned on many people that the patient may not benefit by such elaborate division of authority. More and more the conviction is accepted that adequate study will develop ways by which simplification of technique and proper selection of data will place the general practitioner again in authority.

We who deal with children ought not to give up without a desperate struggle the position of general advisors to children. The worker in child health, whether a doctor, a school nurse, or a teacher, ought to maintain an interest in the whole child. Naturally some of us must pay special attention to some one detail but always with some sense of proportion.

One danger which faces the individual who tries to do duty as a general advisor is that he or she may believe all that is printed or said by other specialists. Here one has to develop a highly individual critical method. The missionaries among us are constantly attempting to get new methods accepted. For instance, we may get so much benefit ourselves from attempting to estimate intelligence quotients that we try to persuade everyone to do the same. In that case, we publish papers, which we send to all and sundry, explaining the method. If the recipients accept our advice, floods of unreliable figures are presented for consideration to skeptical and often irate teachers.

Or we may be so impressed by weight-height-age ratios that we are convinced that a set of charts, a pair of scales, and a kind and energetic insistence on attention to calories will result in improved nutrition.

Others of us may have discovered that social service surveys often help a lot. We find that intelligent observation at home is as important as adequate examination in the hospital. We eagerly write a paper to that effect. The credulous individual

may decide to abandon the hospital and hand over her problems to the social workers.

Skepticism Wholesome

The only safe attitude to take is one of wholesome skepticism. As far as I know there are no new and valid substitutes for the primary virtues of patience, tolerance, wisdom, and experience. These virtues are quite clearly superior to any mass of technical devices. Furthermore one ought to formulate a good working conception of what constitutes an "expert" to whom authority is due. The present tendency is to regard anyone who has graduated from an approved course as an expert. All that I appeal to you to remember is that "expert" and "experience" come from the same root. The least that you should demand is that the expert not only has heard about his or her job but that he or she should have tried it and done it well.

The clear-headed, wise, tolerant, and experienced worker in child health, with a suitable number of properly accredited experts in the background, should be able to select from the tons of advice offered to her those things that she can use. By applying sensible commercial methods she ought to be able to manage interesting and profitable mental shopping trips. Women realize quite clearly that not all advertised goods are practicable. The most primary consideration will reveal that the best is not always the cheapest and that no home was ever made happy by labor-saving machinery alone.

In the same way the child health worker may well refuse to use advertised methods even if they are urged by unimpeachable authority. Many plans require far too elaborate equipment and become obsolete too quickly. In many admirable communities the electric washing machine cannot compete with the old-fashioned washboard because current is not available. In the same way various plans for supervising children require formidable investment in equipment and highly-trained specialists to operate that equipment.

Dr. Mackenzie, who is the greatest heart specialist of the last generation, did a lot of extraordinarily intricate work in

mechanically recording the heartbeats, pulse, and so forth. He was quite inventive. He was convinced that his method was very difficult, and therefore, because it was difficult, was quite useless. His feeling was that until a thing got so that it could be put out of the specialist's hand into the hands of the general worker, it was practically useless. He felt satisfied with his mental processes and with his results only as each one of them was put down where everybody who was interested could use it confidently and regularly.

The Whole Truth of Success

If anyone cares to investigate a highly successful enterprise in the child health or any other field where individuals are cared for by other individuals, he will almost invariably be shown records, charts, methods, and so on. All of these are unquestionably useful in that particular enterprise. What he is rarely told is that the success of the venture has very little to do with these relatively minor tools. If the workers in these properly famous organizations told the whole truth they would point out that they are particularly successful because they are wise and enthusiastic and experienced in their work.

Since all the plans and all the machines and all the ideas for child welfare ever advanced are at our disposal, it behooves us to adopt them with great restraint. The display is fascinating and everything is free, at least they cost almost nothing to buy. But the wise shopper should remember that she is trying to help bring up children and that she may overequip herself so that she is overwhelmed with technical mental equipment and has no time left for the more important matter, the growing child whose care she has undertaken.

"We recognize and appreciate," said the Chairman, "the great rôle that education is playing in this modern health movement. Since we centered our interests, instead of upon the environment which largely made up past public health, upon the human being, we have come to appreciate education as a chief instrument of activity.

"The next topic of discussion will be 'Research in Child Development and the School Curriculum,' by Mr. Willard W. Beatty."

Mr. Willard W. Beatty, Superintendent of Schools, Bronxville, New York:

I think that Dr. Crothers put his finger on one of the most difficult problems which we face, that of getting the knowledge of the specialist into the practice of the general practitioner. There is more knowledge cooped up in small centers throughout the country than any of us realize, and if it were possible to put that knowledge to work, we could transform our educational field in a very short space of time. That is true not only in the problem of health education but equally true in the whole problem of general education.

If we could take facts gained from the research done in the educational psychology laboratories of our country in the last ten years and put them to work in the classroom, we should have a very different type of education. But it is very difficult to change traditional methods of procedure on the basis of what experimentation has proved to be right.

In this field of health education as related to the schools and the school curriculum, we are faced with much the same thing, for despite all of the agitation and discussion which has gone on for the last ten years, the actual practice in our schools is still rather a hit or miss affair. Either the people out on the job do not realize all the things that might be done, or those who do know what they would like to do are handicapped by the ignorance of their superior officers.

A Modern School Problem

I think we sometimes fall between extremes in this matter of school health. One group would have the school take the place of the family physician and supply within the building all types of treatment to children, from medicine for a sore tooth to operation for adenoids, while at the other extreme we find the school which has to depend upon a physician who is so suspicious of any trend toward state medicine that it is impossible to get adequate advice along general lines of healthful living. Somewhere between those extremes the modern school

had to find its way, to take advantage of the present knowledge in the field of health education.

Watching the developments in the field of general education, I believe that we are approaching the time when we shall possess a large enough body of facts to bring to bear upon the problems with which we are faced to make a real contribution to better and healthier living on the part of our children.

I must point out one thing that I think a danger, a thing which we are apt to do in our schools in health education just as in other fields also, and that is, rush in with enthusiasm to do things that we don't know a great deal about, and sell people an idea which we have to contradict a few years later upon the basis of additional information.

This is the situation we face many times in our schools. You all know that a short time ago it was thought that the removal of tonsils was going to correct many ills in the lives of children, and in those days we weren't very careful whether we took all of the tonsils or just a part of them. We "scalloped" them, removed the visible section, and the children were turned loose, rejuvenated and renewed, only to find out when they got to be thirty-five that the thing wrong with them was that they still had tonsils.

Schools Must Avoid Fads

We get a fad and we push it to such a point that after a while the canny Scotchman in our midst becomes a little doubtful about many of the things which we advocate. The school must be conservative in the urging of any particular panacea for better child health.

On the other hand, I do believe that we have reached a point at which the child is entitled to profit by the information which is at our disposal and by the study of his own individual problem.

My own feeling in general education is that the emphasis must be upon the individual, that the thing we need to teach is the thing which the individual needs to learn. We find that many individuals learn a great many things without ever being consciously taught. Some learn rapidly and some slowly. The

modern school is beginning to recognize and allow for these differences. Similar differences exist in the matter of health. Children come to us with certain specific assets in health, certain habits which have been built up from association with parents, and certain weaknesses coming through heredity and bad environment, or through factors in their life experience. Therefore it seems to me that the modern school has to attack the problem of child health in a broad way.

I don't think we can limit our activities to the curriculum. I don't think it is a question of teaching children what to do. I think our program has to be a program for the entire child and I would lay it out somewhat in this wise: when the child enters school he should expect, and his parents should expect for him, that he be given a series of examinations, on the basis of which his entire educational future will be planned.

The Examinations Given

First would probably be a physical examination to assay the physical material which is at our disposal. What are the conditions of health? What are the conditions which are contributing to ill health? Out of that examination would grow certain prescriptions with regard to the future of the child. Some of those prescriptions would turn the child over to the medical profession if there were remedial defects which demanded the attention of specialists. Others of those discoveries would lead us to modify the school program of the child to the end that within the school itself certain corrections of deficiency would be made. That is being done in some schools now in the matter of correction of posture defects and other things of that kind.

In other words, the school should be so organized as to take care of those things which depend upon constant day to day reiteration of certain experiences. Those things which call for immediate handling by an expert in the field should be turned over to a physician to handle.

Second, there should be a psychological examination which tells not only the mental age of the child by intelligence test, but gives us some idea of the mental health of the child and

of his emotional background. We may not be able to determine all the things we need to know on a single examination, but as the child goes on through the school he ought to be the subject of constant intense interest and study on the part of teachers, nurses, psychologists, and others within the school who are in a position to unravel difficulties as they appear.

In our own schools within the last two or three years, we found that there were a number of children from the primary grades on through the high schools, who presented rather serious behavior problems. We had on the staff an individual who, though not a trained psychologist, had done a great deal of such work and whose experience was far superior to that of the ordinary individual. However, she felt those particular problems were beyond her power to handle, so we called in a psychiatrist for an analysis of the problems with which we were confronted.

Diagnosing Behavior Problems

After a very careful study, the psychiatrist gave us an analysis which was rather surprising. In every one of the cases a physical deficiency of one kind or another was found which had not been disclosed by repeated physical examination by the school physician.

In other words, we were told, "Here are certain physical deficiencies existing in this child. This is the thing you must do to remedy these deficiencies. If you correct them, there is a strong prospect that this particular behavior difficulty will disappear." We followed orders, and in thirteen out of fifteen cases there was a complete correction of the behavior disorders which had brought the child to our attention in the first place.

I am not saying every psychiatrist can succeed in that many cases. I don't know but what we played in luck in that instance. But it indicated that our children were entitled to a much richer type of examination and understanding than we, with the means at our disposal, had been giving. It also indicated that there was a definite possibility of supplying the children with health and health education, for out of the expe-

rience the child himself gained certain knowledge with regard to himself that was infinitely more valuable in directing his own future life than anything which the school was teaching.

Third, there should be a series of educational placement tests. I think that the school needs to assume responsibility for placing the child accurately with regard to his educational needs. This may seem a thing that has no particular bearing on the health problems, but it is most important to the mental and emotional health of the child. A parent described to me the other day what happened to his child. This child had been in a school in which he had been having a hard time to keep up with second grade because of a poor foundation. He was taken to a supposedly excellent school. The principal met him and said, "My, what a large boy. He will fit beautifully in the third grade." Then there was some surprise when the child was most unhappy and did not make educational progress.

Such things react frequently on health because they are creating mental problems in our children which are just as important to solve as any more apparent physical problem.

These are three types of examination which will make it possible for us to assay the material which comes to us, and to adapt the particular program which we are attempting to put across in the schools to the needs of the individual child. Such practices mark one step forward in the application of our knowledge in child research today to the actual results in the schools.

The School's Responsibility

Through those three examinations the school assumes three types of responsibility. The first responsibility is that of diagnosis: the ability to say, "This is the situation as we find it. Certain corrections are needed. Those corrections should be taken to this type of specialist outside of the school because they represent something which our particular type of training and information makes it impossible for us to handle." Or, on the other hand, we may say, "This is something we can handle within the schools. This child is going to be given special treatment of this kind in a class of this nature, over a definite period of time, until the correction has been achieved."

After diagnosis, the next type of responsibility is that for corrections which can be carried on within the school and which do not represent an infringement upon the rights of the physicians in our community.

Lastly, I think the schools have the very definite responsibility for carrying on a program of health education and health supervision within the school which will be a program of disease prevention and training for healthier living.

I could have given you a beautiful lecture six months ago on the effectiveness with which a prevention campaign can be carried on, and could have cited our own community as a glorious example. We started in with a full-time nurse and made a special effort to cut down contagious diseases. Our first year, we cut the percentage from twenty to twelve and a half, and the year following we cut it to six and three-quarters. Last year, we ran until Christmas with three cases of contagious disease and were very proud of our record. Then the circus came to town, and we have had nothing but mumps ever since. The question is raised by the parents: What is the use of keeping contagious disease out of the schools when a circus brings it into the schools?

I don't know the answer. Perhaps the only reasonable answer is inoculation which may insure our children ultimately against such things. But it seems to me the schools have a responsibility for deterring the spread of disease and of giving information as to how infection and contagion may be controlled. How can these things be done? What is the organization which will make it possible?

Suggested Organization

The organization has to be a three- or four-fold one which represents a group of people pulling together. I shall outline one which seems to me to meet the need, and quote from some of our own experiences which have arisen out of our attempt to make such a program effective. First of all is a medical staff willing to give thorough and complete examinations of bodies based upon the best knowledge available today. In order to get that, I think we have to educate our physicians, for I

find in many communities a feeling that when physicians give that type of examination in school they are doing themselves out of legitimate professional income. They are a very altruistic lot, but at the same time they have to live. As a matter of fact, the experience which I think many physicians have come across in more enlightened communities is that when people become conscious of values inherent in examinations of this kind, and the guarantee to health which comes, the physicians are directly contributing to their own incomes because they are demonstrating the value of the medical profession in the community.

The next thing is to provide adequate nursing supervision within the schools, to make sure that contributions to bad health within the school can be caught and corrected. It may be surprising that in a school with only a little over 1100 children, one nurse is kept busy three-quarters of the day taking care of matters of first aid. This is a definite part of health supervision, as are certain habits, such as the chewing of fingernails and carrying of things to the mouths. How important some of those things are I sometimes question, but undoubtedly there is a phase of education inherent.

Then comes cooperation with physical education, the making of that part of the calendar day a definite and real part of healthful living in the school, the supplying of big muscle exercises, the supplying of rhythmic muscular coordination, the organization of a program that makes it possible for the correction of many of the types of physical deficiencies through the everyday régime. We find in our own schools in the primary grades we can use such a simple apparatus as the junglegym as a means of contributing to correction of posture without the children knowing it. They are swinging from "the trees" like their ape ancestors and enjoying it hugely. In addition there is the possibility of providing valuable experience in team play and competition which is possible through a program of intramural sports. In our own schools we have sometimes 80 to 90 per cent of the children taking part in after-school sports two and three afternoons a week. These sports are so carefully supervised that we know the extent of physical activity which practically every child is capable of engaging

in without disadvantage to himself. The games can be stopped and certain individuals taken out. The playground is so organized that certain types of over-strenuous activity can't go on. We have track meets but no grueling intermediate and long distance runs, for the simple reason that we won't allow it. We have the type of running and jumping that allows a justifiable expenditure of energy for adolescence and do not allow them to overstrain. In the same way we supply special training for children who need correctional work in physical training. We have those special periods handled by the physical education department.

Lastly, the school cafeteria can be supervised and the ménu planned by a dietitian so that the children will eat what is desirable. Here again, in the matter of diet, I think we have said a great deal about subjects of which we know very little. But after all, the best we can do is to give our best knowledge at the time.

An Understanding of Healthy Living

Rather than see specific courses in our schools, devoted to an attempt in five minutes a day to give the children fine health habits, it seems to me there is a place in the courses in life science, biology, home economics, and elsewhere, to make a thorough study of plant and animal life which will lead to a clear understanding of the living problems which human being as organisms face as well. In this particular field it seems to me the main objective is that of an understanding of healthy living, and in order to do that, we must be able to talk frankly and fearlessly about problems of the nervous system, elimination, various physiological functions of the body, and lastly but by no means least, the function of reproduction as it exists throughout the lower animals and as it exists in man. If you are not able to speak frankly about such things, all this talk about health education is so much erudition. If you can't tell the child that one of the important things is to have adequate elimination every day of his life, and if you can't supervise the use of the toilets to see that the children have such elimination, if you can't check closely with

the parents to see that the children have proper habits at home, you might as well shut up shop because you can't influence one of the most important of the functional habits which has to be established.

Therefore, it seems to me that our whole program is one of bringing to that popular level which makes it useable by all of us, those phases of our knowledge in the field of health which are actually established at this time by expert experimentation and investigation. Let us make those a part of your common knowledge and mine, common knowledge to the extent that we may pass them on to the children as the ways and means of healthy living, and that we have intelligence enough to refer to those who are more expert than ourselves the problems which are beyond our power to solve,—there it seems to me is the application of research in child development to the problem of health education in the public schools.

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AT WORK IN SPECIAL SESSION

Health Education in Elementary Schools

> "We need to know a very great deal more about the very common interests among children at a given age. The only thing we can do is . . . to set up just as many ways and means as possible for learning more about the children themselves, who are, of course, of supreme importance."
>
> Chairman Cunningham.

THIS entire conference is very vital to me," said the Chairman, Dr. Bess Cunningham, "because personal experience has proved that anything which has to do with the proper care of children must be guided and directed by many, many different interests."

Dr. Cunningham pointed to the discussions during the conference week as evidence of this fact, "no matter whether we may be working from the standpoint of the teacher, the psychologist, the school nurse, the physician, or the social case worker."

Dr. Bess V. Cunningham, Associate Professor of Education, Teachers College, Columbia University, New York:

We want to discuss, first of all, some of the criteria which should be used in considering whether or not certain activities and materials which are brought into the curriculum are sound. In particular, we want to discuss whether or not certain things which we are desiring to bring into the curriculum will measure up to the criterion of conforming to scientific content and scientific method of presentation.

Dr. Lerrigo will start the discussion.

Dr. Marion O. Lerrigo, Research Assistant, Emma Dolfinger Memorial Fund, New York:

I want to suggest for your consideration two or three ways in which this criterion of the scientific validity of our activities and procedures may be applied.

First, why is it important for material to be scientifically accurate? We give materials and subject matter to the boys and girls in order that they may act upon them. Unless we get action we do not feel that our subject matter and our materials have been of any very great value. Suppose, however, that our subject matter or material does get across, and the boys and girls do act upon the material we have given them: if our information is basically untrue and inaccurate, then they will form habits, and pursue a course of action which may be distinctly harmful to them.

Take an illustration from the materials in use in the school environment: If there is a common towel in the washroom of the school the child learns to use a common towel after washing his hands. That is a distinctly harmful kind of teaching material from the point of view of this criterion of scientific accuracy.

Exaggeration and Health Teaching

The next point which I would like to call to your attention is the fact that exaggeration in materials is likely to invalidate the scientific accuracy. We often find such statements as this: "You never saw a football hero who had bad teeth," or "A clean tooth never decays." How much damage such statements may do is hard to gage. Certainly they may, in the intelligent child, create an attitude of distrust and perhaps suspicion of the teacher's authority, suspicion of the reliability of materials which contain such statements. I think that exaggeration is often used with comparatively little harm, but I think that it is a fault of materials which does invalidate their scientific worth.

I wish to speak of two other things with relation to this criterion of scientific validity. It is a very inconvenient fact

that from the physiological or medical standpoint, from the standpoint of almost all of the sciences which underlie health education, we do have to allow for individual variations. It is very difficult to make a hard and fast rule which will apply to everyone in a helpful and beneficial manner.

This sometimes makes it difficult for us to present our material to the children in a way which they can understand. There is a difficulty in presenting a variable to the young children. I believe this has been done more successfully with relation to the idea of weight than it has with any other phase of the health teaching program of which I know. Many teachers have been successful in teaching the children that there is a weight zone within which individual children may vary and still be considered normal; that there is not a definite line of weight which must be considered as best. I think we may be able to do this, in relation to other variables. It is very important to let children learn that they will have to apply judgment to their own individual problems, and that they cannot always accept hard and fast rules.

The last point which I have to offer is a consideration of this criterion of scientific validity from the point of view of advances in scientific knowledge.

Boys and girls must learn to have a point of view towards their own problems of personal hygiene which permits them to take advantage of discoveries, and which, at the same time, will prevent them from following every whim and fad of the latest thing announced in the newspapers.

I would like to leave with you this question: Do you think that exaggeration in health teaching is ever permissible?

Chairman Cunningham: I wonder if that in itself does not go back immediately to the question as to whether or not we are scientific. The scientist does not tend to generalize from a few particulars, and I should like to add to Dr. Lerrigo's question whether or not exaggeration is ever desirable a companion question: Should we at any time take the children, regardless of how young they may be, into our confidence and present material as the best knowledge which we have at a given time?

Dr. Lerrigo: I wonder if by using the historical method, it is not possible to give even rather young children the idea that we may still make improvements and advances and changes in our knowledge and by doing this increase their confidence and their feeling of safety.

Dr. Raymond Franzen, Director of Research, School Health Study, American Child Health Association, New York:

Dr. Lerrigo's analysis of the situation fits in with my thinking in a very emphatic way. I think we can extend Dr. Lerrigo's point to include false motivation. Some problems of this type have been bothering me considerably. One is with regard to the use of any kind of anthropometric gage of nutrition, any use of physical measurements in order to find out whether children are or are not properly nourished. Now, we all know that the use of height-weight tables may have done a lot of good. I am the first one to agree strongly that any problems of growth and any concentration by teachers upon growth phenomena may be educational.

There are a great many materials now available which make us see the whole matter of interrelation of physical qualities as a complicated thing. Therefore have we not over-simplified in using the height-weight table to the extent we have used it?

As a matter of fact, children vary in weight more because of chest dimensions and hip dimensions than they do because of height. As an additional fact, you can predict the weight of a child pretty nearly accurately without taking into account the recent history of nourishment, sleep, exercise, and expenditure of vitality.

Now, if you can so account for weight, it becomes a fact that if we motivate children toward a change in food habits because they are below weight for their height and age, we have used a motivation based on unscientific material. I think we must be very, very guarded in accepting materials; we must be sure they are scientific and not exaggerated, and that they do not lead to activities which bring disappointment.

Chairman Cunningham: Has someone else something to contribute to this question?

Dr. George T. Palmer, Director, Division of Research, American Child Health Association, New York:

I like the suggestion that even young children be given a plain statement of facts, that in the matter of presenting truths they be told frankly that this is the best available knowledge that we have, to accustom them early in life to the thought that this knowledge will be subject to change later on. This appeals to me as sensible, as a preparation for the actual situation which children face as they go on further in their school career and out into life. May I ask if it is not perfectly feasible to present that idea to young children?

Miss Maud A. Brown, Director, Bureau of Coöperative School Health Service, University Extension Division, University of Kansas, Lawrence, Kansas:

I was asked to give my idea of the criteria for the selection of material for presentation to elementary school children.

That the material be scientifically accurate is axiomatic, though hard to prove. That disposes of a good many of these points under discussion. You cannot exaggerate a scientific statement. It is true or it is not true. If it is not true, we have no right to present it to children.

A second point, also, it seems to me, takes care of some of the knotty problems. The material must be limited to absolute essentials. If so, there is no trouble as to whether it is scientifically accurate, because there is no serious disagreement among health authorities about any of the procedures that are essential to the actual wellbeing of children. When we list the men or women who have a right to speak with authority on each one of these specific points, I do not believe we shall find them disagreeing.

Last year I heard two statements in two sections of the American Child Health Association meeting in Chicago. The first was by an exceedingly valuable worker who was not a nutrition specialist: "Just look how we have changed all our teaching about spinach and brown bread." In the next section, Dr. McCollum made the statement that there can be no question asked that is of fundamental importance to the nutrition

of childhood which will not be answered in the same way by any one of the twenty-five leading nutrition authorities in the United States. And I believe that is true of other phases when you get down to the actual essentials of child health, and to specific authorities.

Limiting Teaching to Essentials

That is true in the field of anthropometry. We haven't any truth beyond the fact that healthy children grow better than unhealthy ones; that children who carry out all the essentials of an adequate health program grow better than children who do not carry them out. I have hunted for ten years for an exception to that, out of many thousands of school children, but I have never found one, and I do not believe there is one. If we just absolutely, rigidly limit ourselves to essentials, the non-essentials will take care of themselves. Dr. Franzen is taking a frightful advantage of me and I suspect he is of some of the rest of us when he talks about predicting weight on chest expansion and hips, and so forth. These technical points in anthropometry which have been thrashed out with technical committees do not concern us because we know that height, chest width, chest expansion, hip width, and all of these things are all merely symptoms of the conditions which influence the child's growth. I am glad to see Dr. Franzen nodding. I think the important thing is that if we limit our teaching to children to the things we can understand there is plenty, and we should accept authorities such as these people on the technicalities.

That brings me to the third point. The health behavior program and health knowledge program has to be presented as a unit to each age group because the human organism is so intimately coördinated a thing that, if you teach one fact at one time and something else at another time, the lack of interrelationship is going to vitiate both. It is because we insist on milk as milk that all this difference of opinion about whether school children should be served milk or not arises. If we include milk as one item of a behavior program, which also includes four hours of big muscle activities, which includes the

right number of hours of sleep, and green leafy vegetables for appetizers, why, the problem of milk disappears. It is because we insist on isolating our facts one from another, when one child is a very complicated bundle of the effects of all of these things, that we have difficulty.

Then the fourth criterion: Many of you will disagree with this but I have developed it in self-defense because I have tried to do otherwise. For children, our subject matter must be selected to include the whats and hows of health and health behavior, but we need not bother about the whys because we do not know many, and those we do know, the children have not the background for understanding. We get into the deepest water in trying to explain the whys of the very simplest health behavior.

Fifth, the subject matter must meet the individual need of the individual children. That assumes that the teacher knows the individual need of individual children, and that is the big problem of teacher training; it is the teacher's first duty, and difficult to achieve.

Sixth, the instruction should stop when the needs are met. Do not insist on elaborating information for a whole class about some one item of information or of behavior that all the children know and agree upon and are carrying out, while at the same time some point which is a matter of common nonobservance is neglected.

Chairman Cunningham: Our discussion to this point suggests that we can use the criterion of scientific validity to guide us in the selection of certain content, certain activities. Can we turn to scientific procedures and get just the same kind of guidance in the organization and presentation of materials to children?

Mr. E. R. Kontner, State Supervisor, Health and Physical Education, State Department of Public Instruction, Harrisburg, Pennsylvania:

Our state department, in an address to the students a year ago last November, set up the principle of placing ideas corresponding to the work in the minds of children as one way of improving instruction. Of course, thereafter I was very

eager to find out just how many terms were being used in classrooms with which the children might be expected to have no sense of material and consequently very little concept of what was meant.

I went into a fourth grade class in one community soon after a presentation of this type, and they were talking about germs. I was quite sure in this school that the pupils hadn't been given the opportunity of seeing germs. They had had contact with them possibly from the standpoint of certain acute health difficulties, but they had very little sense experience with germs. The teacher was using the terms. She was talking about germs. I tried to bring out from the pupils just what they thought of it when the teacher said "germ." After trying out three children, finally a boy arose and began to describe a boy dressed up in masquerade fashion with "Germ" written across his chest.

I found in the third grade the previous teacher who had the class had given a great number of so-called fairy pageants and had provided the only sense of experience on which this child was to base his concept of germs.

Chairman Cunningham: As Miss Brown has been talking about the necessity for presenting all the child needs to know at any given time, the question has become very active in my mind as to whether or not there is a very definite limit to the amount of health knowledge which a child can take in at any one time.

I should like to bring up for discussion this question: If we want to teach health facts only so that we can get children to say the thing to do is to sleep so many hours, so that the children could run off on their fingers certain standards and could very definitely appreciate these standards in actual practice, how much of that can you teach all at once?

Now, when we consider establishing certain habits, have we not a quite different question? Would not the scientific procedure on the one hand say, "Limit very definitely what you are going to teach, and teach what is within the grasp of the child. Teach it well. Have him learn it, and then take up the next step." However, from the standpoint of doing, getting

children to do the desirable things, we want them to be forming the habit day by day of doing all the desirable things.

I wish we might have some discussion of ways and means of keeping these two questions clearly before us, and that we might discuss the presentation of activities, which will cover both content and the fixation of habits which the child is not necessarily thinking very deeply about. How are we going to present materials scientifically which we want children to have?

Dr. Joseph I. Davidman, Principal, Public School 78, Manhattan, New York:

I think there is a danger in going from the extreme of arbitrarily giving children certain facts and asking them to accept them, to the extreme of taking them completely into our confidence, because small children are not yet of the age when they can understand the why. They have not the background. We must or should give children only as much rationalization as their maturity and stage of development fit them for.

In developing habits, we have to motivate them, and a certain minimum amount of rationalization and explaining the why and wherefore becomes necessary. Too tentative an attitude toward things may develop skepticism. There is a tendency to skepticism in adolescence, but by that time children have developed also a reasoning and a critical faculty, which enables them to use this skeptical attitude toward knowledge more constructively. Small children have to take things on faith even if we are a little arbitrary.

Chairman Cunningham: The question has just been raised by Dr. Galloway as to whether or not we do not have a very two-sided question all the way through—one, the question of establishing desirable health habits on a very broad scale without any analysis, and, possibly on the other hand, of a growing analysis as the child grows into the situation.

Miss Grace Langdon, Instructor Kindergarten and First Grade Education, Teachers College, Columbia University, New York:

Speaking from the standpoint of very, very young children, I feel decidedly that there are two sides to the story.

Children certainly need the feeling of security which has to come from their confidence that the older people are doing for them the best possible that they know. Of course, that is beyond the eighteen months or the two- or three-year-old period. But I think the confidence has to come not from authority but from confidence in the reactions of these adults with whom they are in contact, that always they are getting from them the best that that person knows. That person may change today or tomorrow in his knowledge, but he does not change to the children in his attitude or in the way that he reacts to them. In that there is consistency that gives security.

For little children I think the why of health knowledge must be kept in obscurity otherwise it becomes a self-centered health interest which certainly one does not want.

With the nursery school children their whole attitude toward all the matters of health should be one of pleasure, satisfaction, acceptance of and confidence in the things which adults do. Later on this dependence upon adults will be replaced by the children's understanding of the whys.

Chairman Cunningham: How much of the very well rounded out health curriculum which these little children in the nursery school are having are they definitely aware of as health teaching?

Miss Langdon: I think that may be answered by leaving this field entirely for another. The matter of social custom in the nursery school is always a moot question in any nursery school conference and every convention. Shall the children be taught to say, "Good morning," "Thank you," "Excuse me," and so forth? I feel that that must be accepted as a matter of course as it comes to have meaning to the children. The children hear these phrases but we do not ask that they repeat them. Gradually they begin to have meaning, and the children, interested in imitating adults about them, use the forms voluntarily. I have something of the same feeling toward the matter of picking food up off the floor. The adults do not eat food that is picked up off the floor, and children do not. It just is not done.

I am concerned not so much with the health habit involved,

as I am with the attitude of willingness to do the thing that is to be done, with confidence in the adult that there is a reason for asking it.

Miss Brown: I think we all agree that the ideal situation with regard to health behavior is just the ideal situation with regard to ethical behavior. A child must be in the habit of telling the truth and behaving properly with proper consideration towards his playmates, and so forth, many, many years before he gets to the point of theorizing about the reason for ethical behavior.

I think that is true about health behavior, but we are at the beginning. Right now many of us feel that this whole problem of health education is in a temporary exaggerate state. It is out of focus with the whole, and necessarily out of focus with the other items of the educational field.

Chairman Cunningham: Miss Phelan, you have been working in the field. Have you something to contribute?

Miss Anette M. Phelan, Instructor in Health Education, Teachers College, Columbia University, New York:

Our purpose in the selection and use of materials is always to influence the health conduct of the child. The means used for doing that is to let the child know the right thing to do; how it may be done; and then, when it is desirable, and the child is ready for it, why that is the best thing to do.

There is another thing which health material ought to do which is very essential if it is to influence the conduct of the child in a desirable way, and that is to integrate the mental, emotional, social, and physical health values. I believe that that is done primarily through the approvals which the health material helps the child to recognize. Naturally that comes back to the appeal which the health material makes to the child.

The integration of a personality, according to the sociologists and psychologists, is done through an integration of values or wishes. Thomas's analysis of it has helped me to appreciate four fundamental wishes that affect our approv-

als: The wish for security, as satisfied by having a home; the wish for dominance, as satisfied by competition or achievement; the wish for personal response, as satisfied by friendship; and the quest for new experience, as satisfied by explorations and discoveries. I have found it very helpful to analyze health education materials for children in the light of the challenges which they offer to the child, to force him to an effort to satisfy one or another of those wishes.

Health Interest and Security

I should like to discuss here some health material that is a definite challenge to the child's sense of security. In all our use of the health interest, our health clubs, health days, health movies, drinking milk for health, going to bed for health, refraining from picking up food off the floor for health,—it seems to me every time we thrust those things before the child we are appealing to a health interest which challenges his fundamental sense of security.

Have we any right with young children to challenge the child's sense of security so far as health is concerned, if we are not ready at the same time to give him an indisputable, easily attainable, and easily recognizable means of regaining that sense of security?

We can challenge the child's sense of security so far as diphtheria is concerned, appealing to the health interest directly. At the same time we are able to hand to that child an attainable means of gaining immunity to diphtheria. There are not many such instances. And yet we challenge the child's sense of security day after day through the use of certain of our health education materials.

I want to leave with you the question whether we are ever justified in challenging, through the use of health interest, the child's sense of security without offering him the means to regain it.

Chairman Cunningham: Miss McCormick, have you something to say?

Miss Mary G. McCormick, Supervisor of Nutrition, State Education Department, University of the State of New York, Albany, New York:

We ought to get to the children in some way, I don't know when, the concept that our knowledge will grow—not necessarily that it will change and be contradictory to what we have previously taught them.

In one of our large cities last year we gave the Gates-Strang Health Knowledge Test to over five hundred seventh grade children. You remember in that test there was one question about this very fact, that the facts they are learning now will always be true—that is one of the possible answers. It is the wrong answer but it is a possible answer, and a large percentage of those seventh grade children said that the facts they are learning now about health will always be true.

It seems to me that some time during their course they should be taught that our knowledge is developing and possibly changing.

Miss Ethel A. Grosscup, Advisor, Child Health Instruction, State Committee on Tuberculosis and Public Health, State Charities Aid Association, New York:

As to changing from things that we have taught before to a different idea, I would like to give an example from safety education. I had this experience in several teachers' meetings with rural groups particularly: I was trying to teach the teachers who walked home on the highway to keep to the left of the way. This is a very decided change, because for a long time in this country we have said that pedestrians and traffic should keep to the right. We have accepted that. Now we are trying to teach that the right side is the wrong side of the road.

In one group one of the teachers came up to me afterward and said, "Only yesterday I taught my children to walk on the right side of the road. How can I change now?"

I believe that goes back to the normal school training. Shouldn't we make a more specific point there of having our teachers come out of the training school with the idea that

the training they have had there is not necessarily the last word?

Dr. Franzen: I have always felt that distinctions between the ways children learn should be made, with regard to some of these materials. We are used to definitely recognizable learning situations such as occur in arithmetic and reading. Of course there are different combinations, especially in reading and in arithmetic, but the combinations are by no means as difficult to recognize as are the situations that occur in the health field and in the character field.

Miss Brown made the analogy with truth telling. I find little children, on analysis, are not readily able to distinguish between a broken promise, a fairy tale, exaggeration, and a lie. The same thing is true in the health field. Situations vary under which certain actions are advisable and commendable. For that reason we have an entirely new learning process, and it makes teaching the why a much more doubtful procedure. From a logical point of view the why becomes distinctly confusing. You do not want them to drink orange juice because it is orange juice; you want them to drink it because of certain qualities which may be supplied by other foods. The "why" then has to be sufficiently extended to allow alternatives of conduct. This presents us with a distinctly new problem, which has not occurred in the routine processes of the learning instruction in the other elementary school subjects.

Chairman Cunningham: Miss Munson, will you contribute to the discussion by telling us of the way in which you use criteria in judging curriculum materials?

Miss C. Margaret Munson, Associate Director School Department, Cleanliness Institute, New York:

I have been asked to present an outline for cleanliness teaching, prepared in response to repeated requests from the field. To make this outline, one hundred courses of study, chiefly from the State Departments of Education, were analyzed, representing 36 different states, three cities that had very definite progressive courses of study in health teaching, and two of the outlying possessions of the United States. These

were not courses of study simply in health and hygiene but in geography, history, civics, home economics, arithmetic, and were examined with the idea of finding out where cleanliness teaching was actually included, or where it might be included for daily use. We extracted from these courses of study the sections that particularly offered opportunities for cleanliness teaching, according to the different grade groups. In analyzing the courses of study we made no effort to evaluate them but found what the different states were teaching and how cleanliness could be included.

However, in setting up the outline itself, we did use certain criteria. The material selected had to be scientifically sound; it had to have a positive appeal; it had to be a part of life's situations and have a pleasurable association.

We arranged the outline by grade groups because standards for individual grades varied so widely. We based our scale of habits, attitudes, and knowledge of cleanliness on "Health Behavior" by Wood and Lerrigo, and on "Health Education," the report of the Joint Committee on Health Problems in Education, as probably the two best statements of such standards. A second part of the outline suggests activities, and a third suggests correlation with classroom work. Both of these were built up entirely from the material obtained by analyzing the courses of study.

Many pieces of work that are being carried on are unfamiliar to us, and we may be able to make changes in the outline to make it more valuable and practical.

We need special help on the section dealing with equipment needed in public schools for handwashing because of the lack of standardization. In connection with this Dr. Tobey made an analysis of the rules and regulations in the different states, based on information which he got from the State Departments of Health. The results are incomplete, but so far there were only, as I remember it, ten states which in their state requirements had anything specific to say about the handwashing facilities which should be in school buildings.

Chairman Cunningham: Does anyone else have something to contribute to this topic of selection of criteria? We have been

discussing so many things that I am sure we are all of us doing a great deal of thinking, and they all take us to the question of the interests of children. We can plan certain desirable activities and test them for scientific validity so far as content is concerned, but we are confronted with the problem of making changes in the behavior of children and that, of course, is our primary function. We need very much to have a discussion of the interests of children, and we have asked Miss Hoefer to start this discussion by telling us something of the work that she has been doing.

Miss Carolyn Hoefer, Research Department, Elizabeth McCormick Memorial Fund, Chicago, Illinois:

I am going to present material which we have used, I feel with a great deal of success, in the Joliet public schools.

The final summary of the results and recommendations of the Health Education Conference held in Chicago in 1925 suggested that the members gather more exact information concerning the nature of the individuals for whom health education is provided and concerning the quality and usefulness of the health education procedure then in vogue. They were also asked to measure the results of health education in terms of habits, knowledge, and health improvement. It is our purpose to present here some* of the materials and activities used in a four-year program, and to present elsewhere in the record of this conference the plan of organization which functioned, along with a few of the results.

Briefly, for the benefit of those who may not be familiar with the study, the data here presented are a part of an investigation which was made under the direction of the Elizabeth McCormick Memorial Fund in the Joliet, Illinois, public schools. The problem was to study the effect of an intensive health program—as contrasted with the type ordinarily given in the schools—upon the various aspects of physical and mental growth of a group of 450 children. Progress was measured by a series of annual examinations consisting of a physical examination, anthropometrical measurements of eighteen phys-

* Miss Hoefer presented an interesting chart which space limitations do not permit us to print in this record.

ical traits, a psychological examination, educational and physical achievement tests, and a series of twenty-seven personality trait tests.

The scope of this paper will be limited to analyzing the materials into working units, and to ranking activities and ideals in their order of importance.

Few courses of study in any subject have taken cognizance of the actual needs of the community which they are to serve, nor have they been sufficiently flexible to be readily altered as the needs have changed. In the organization of a curriculum, the educational value of any experience is measured by the degree in which desirable differences in conduct are made. But all experiences do not influence conduct to the same degree, hence those which made the most valuable changes should be selected as the basis of the curriculum. For example, in organizing a course in health education, to what extent have the mortality statistics been analyzed? Yet this is no doubt the best index to the health status of the community. In Joliet even before the present vogue of dieting, the statistics showed from 1916 to 1920 inclusive that the ages from 10 to 19 years were each year contributing a larger per cent of the total deaths than the preceding year and that tuberculosis of the lungs and pneumonia were the two outstanding causes.

It seemed quite apropos, then, to use as the first aim in the fourth grade where the ages range from nine to eleven years a general idea of some of the factors that are involved in the growth of a normal boy or girl, to interest the children in the general problems of good health. The story used in introducing the subject of health was "The Most Wonderful Thing in the World" from "The Land of Health," by Hallock and Winslow. The story ends with the sentence, "Life is the most wonderful thing in the world." As actual participation is necessary in the development of interests and permanent attitudes, the children were asked in this unit to keep a record every day of the pupils who were absent, to try to improve the record each week, to study the causes and prevention of absences, and finally to make individual analyses by keeping individual records. Here was a definite attempt to stimulate interest, by means of a story, and a project, in a most vital factor in health education

and to emphasize it at a time when it was of greatest importance to the children of Joliet.

Arousing Interest in Posture

The first medical examination of the children stripped showed that there were only 26 per cent who might be rated as having good posture. The aim of the second unit was to acquaint the children with the value, desirability, standards of good posture and to create a desire on the part of the children to maintain a correct posture. Children of this age have very little interest in personal appearance but they do have an "attitude of curiosity." The story used to stimulate interest was "The Framework of the House," taken from Haviland's "The Most Wonderful House in the World." To arouse these children to active participation, three types of activities were used. The first was an experiment to find out what our bones would be like if they had no stiffening, by using hydrochloric acid on a chicken bone, showing how easily it may be bent after a few days. The second was an attempt to utilize the mental characteristics of this age, the interest in individual exhibition. At the medical examination each child was given an individual chart indicating his own posture and showing three figures, the first in a correct posture, the second in an exaggerated posture and the third in a posture showing marked fatigue. Since they are interested more in the approval of their own sex, the boys' chart had only the boys' figures on them and the girls' had the figures of the girls. The third method of interesting the children in this particular problem was the introduction of the postural games, such as balancing and arch ball. The individual charts with the record of the yearly examination provoked more interest than the other methods which were used.

Baldwin in his study, "Physical Growth from Birth to Maturity," has shown that between the ages of 9 and 14 the girls are taller and heavier than boys, and that due to the preadolescent spurt there are variations in the rate of growth of the various segments of the body. The determination, then, of the proper conditions of healthy growth and gain formed

the basis of the third unit in the fourth grade curriculum. The "Health Game," taken from Turner and Collins' "Health," formed the basis of introducing the subject. Some of the contributing factors in the laws of normal growth were included as part of the scientific information given at this time.

Time will not permit a detailed analysis of each unit but a partial resumé may give an indication of the technique employed. The unit of sleep included the story, "The Land of Somus," the construction of a health clock, a project on sleep initiated by a collection of lullabies and slumber songs which have been used in different countries, a study of the sleep of animals, followed with a practical application of the amount of sleep children should have, the proper way to make a bed for indoor and outdoor sleeping, a collection of poems which American poets have written about the subject, and finally suggestive means for measuring the actual records of the children themselves.

The aim of another unit was to help the children realize that health is an individual problem, and the weighing and measuring may be only one of the means of studying growth. This unit included a project called, "Who's Who in Healthland," used in the schools of Newton, Massachusetts, and a radio health booklet.

The Unusual Attracts

Cleanliness, the bane of every boy's and girl's existence may be made a most interesting subject. The subject was introduced by a study of the cleanliness of birds and animals. Such unusual facts as these caught the attention of the children at once: "A bird has to comb his feathers more carefully than you do your hair. . . . If they become entangled, wet, and dirty, he would die in a short time because his clothes would not keep him warm any longer." One of the first lessons "the young bat learns is the making of his toilet, for the winged Brownies are exquisitely clean in their person." This is the way he washes: "After dipping once or twice in the water so that the lower fur is dripping wet he flies to some well-known roost and hanging first by one foot and then the other, he combs his fur with the thumb that grows on each wing bend;

and then with the finer application of his teeth and tongue every part is licked as carefully as a cat might dress her coat. And lastly, his wings are massaged inside and out. He licks and pulls at the membrane, stretches it over his head until every part is cleared of every speck of dust and the fur slick and clean." The monkey takes the baby to a pool of water when he awakens and washes his face like a human mother.

Children are also interested in a study of cleanliness of children of other lands and in the historical facts of the origin of the bath tub. For example, the tub was first used in an American home by Adam Thompson, December 20, 1842, in Cincinnati, Ohio. While on a trip to England he became acquainted with Lord John Russell who a dozen years before had invented the bath tub. Upon return to his home Thompson had one constructed of mahogany. It was seven feet long and four feet wide. When finished it weighed a ton. Almost ninety years ago, Thompson took a bath in his bath tub. He derived so much pleasure that in the evening he took another. He gave a Christmas party inducing four of the party who were braver than the rest to take a bath.

Philadelphia put a ban on bathing from the first of November to the middle of March. Virginia showed her objections to bathing by placing a tax of $30 a year on every tub brought into the state. By 1860 every first class hotel had a bath tub, and some hotels even two or three.

The development of the shower bath was also very interesting to the children. It consisted of a trough and a wooden box with holes bored in the bottom. "The box which was stationary was placed a little higher than a man's head. The trough was raised and lowered by ropes and pulleys. To take a shower, all one had to do was to lower the trough, fill it with water, pull it up, tie it, tilt it, and the water would run out of the trough into the box through the holes onto the bathers." Simple was it not?

Curiosity Added to Interest

One more illustration of a method which seemed to appeal to children's interest and curiosity. Twenty-three per cent of

the Joliet children who were examined had fallen arches. To interest children in certain exercises which would help to remedy this condition, or to interest them sufficiently so that they would purchase the proper type of shoe does not seem to be an easy task. And yet the teachers have reported that this unit was the most interesting one. A study of the types of shoes worn in different ages captivated the attention of the children at once.

The psychological principle behind this method of teaching may be thus summarized: Much depends upon the child's attitude in learning, which in turn is influenced by the degree to which he is curious. Unless special care is taken, an attitude may easily be changed into one of disgust and much of the lack of interest in school subjects is caused by the unfortunate methods employed by the teachers, for the transition from one attitude to another seems almost to be a knife-edge.

If we interest children in the purpose of proper habits, if we give them an intelligent idea of the possible end result of their own effort, if we get their intelligent coöperation, we obtain very different results than if we impose our knowledge upon them and then merely tell them that it is their duty to do as we wish them to do. We must give attention to the hygiene of feeling and to those fundamental principles which favor proper attitudes and habits before we can hope to have a wholesome attitude on the part of the children towards good health. The development of some central interest or great ideal by the doing of some significant task seems to be the best means of integration.

Chairman Cunningham: Miss Hoefer, I would like to raise a question. By going back and making shoes a matter of very great interest to children, having studied it from the developmental point of view, have you done anything at all to show whether that interest goes over very speedily into practice?

Miss Hoefer: I expected to present actual figures of the data that we had as a result of medical examinations and certain tests which we devised. We did find, as far as this particular instance is concerned, that the children did do the things we asked them to do. I think that part of the value of using

this type of material is that it keeps the subject before the children long enough for them to establish a habit—that you can teach them to purchase the right kind of shoes. But sometimes that does not work. We state that habits are formed by repetition and practice, or they are formed by strong initial reaction. You can also form them by using an extensive method of projecting, extending over a period of time.

For example, we have been working on a dental experiment in which we are trying to affect children's behavior by the use of moving pictures, and we gave intensive instruction over a period of two or three weeks. The children are going to the dentist, and we are not giving them the service. They are going because they are intensely interested.

Chairman Cunningham: Possibly the repetition may be the crucial factor here.

Miss Juliet Bell, Staff Associate, Division of Health Education, American Child Health Association, New York:

In the past we have been making health interesting rather than finding the children's interests and harnessing health to those interests. The question of the interest of children is much to the point just now.

Miss Phelan: In the nursery school I had the opportunity to see inherent interests or natural impulses of children used to develop habits. I was very much interested in the way children learn to wash their hands before lunch. Purely the manipulative interest was appealed to there, or the exploratory interest, but mostly the manipulative interest. The child climbed on a stool to the washbowl. He had a chance to put the stopper in the washbowl. It sometimes happens that at eighteen months or twenty-four months they are not always strong enough to turn the faucet to let the water run. Sometimes he struggles with that and it is necessary for the teacher to help him. All through he was learning the habit and acquiring the skills that were essential to washing his hands. Day after day he manipulated those same things which appeared in his environment and learned other habits. For instance, there was a little loop on the corner of the towel. There was a hook where the

towel was to be hung. He manipulated that, taking down his towel, or getting his comb, or his washcloth. He had exactly the same experience in satisfying this wish and handling those things as he did in taking off his shoes, putting them in the locker, hanging his sweater on the hook and getting his coveralls from the shelf, pulling them on and fastening the straps or the buttons. All through the day they manipulated these things and explored, and they acquired a habit with amazing rapidity.

Some Efforts in Integration of Health Activities

"Criteria for judging health materials and ways and means of discovering what are childrens' interests, and of making use of them, will go through our entire discussion," said Chairman Cunningham, in bringing before the group a new subject for their attention. "Leaving that topic temporarily we will now take up the question of integrating the health activities in the school program, getting the coöperation of the school, and the various people who are working through the school, and of the home. We have asked several people to help us start the discussion of that particular question. Mrs. Bliss will lead."

Mrs. Ethel Bliss, Lincoln School, New York:

I had the opportunity of working at the Lincoln School, last year, with a group of five-year-old children which was to be distinctly a preschool group, in which there was to be no reading.

I became very much interested in working out a unit of work, or center of interest, as we have them at Lincoln School, to try to see whether I could get the whole child in it, and whether we could check up in any way, given the coöperation of both the home and the special teachers, and have something to show for it at the end of the year. Building wholesome health attitudes in five-year-old children was one of my interests.

People who are happiest are those who are best able to meet life at any turn; people who are healthiest are those who can enjoy wholesome food, walk and run and play with enthusiasm, who can rest quietly and drop off easily to sleep, tired but not tense. The best way to achieve the first as well

as the last is by developing the right attitudes early, by providing the proper environment with plenty of chances for free activity, and stimulation enough to ensure growth. In the first case, it is an attempt to grow in the direction of a certain kind of success. In the second, it is growing in attitudes that lead to a healthy personality. The whole question is one of growth, beginning early enough before the child has formed bad habits, which have to be overcome before he can develop better ones.

The "Health Crusades" of the past years have many of them to my mind been pitiful as well as laughable attempts to attain these habits by the old methods of teaching health patter or by awarding prizes; the result being in many cases frustration of the very end desired. In the attempt to get away from the old ways, and emphasize the development of rich content based on children's interest, it is well to stop to consider whether in meeting individual needs in social adjustment, we are also meeting the individual differences and needs of the physical and emotional sides of child nature.

In order to face this question fairly, an attempt was made with the five-year-old group at Lincoln School to record rather closely the results of a health program, as well as the social development through a rich content. This group consisted of seventeen children with interesting home environment and background. It was understood that reading as such was not to be a part of the program. Those of the staff who coöperated in developing the program for this group were the school physician, the psychologist, psychiatric nurse, and special teachers in music, physical education and both household and fine art departments. Many helpful suggestions also came from members of the department of health education at Teachers College.

The Program Outlined

In giving some of the results it is hoped they may prove helpful and suggestive to other groups. This was the program in outline:

First, the program was planned without any particular mention of health; second, without any individual remedial work

outside the group except when it seemed most advisable, and even in such cases it was carried on without directing the child's attention to his particular need of such work. Third, it was undertaken with the knowledge and close coöperation of parents through group conferences, and many individual conferences with every parent to find out what were particular problems in which the school could coöperate. Fourth, it was to be guided by the physical examination to be given each child at the beginning and end of the school year, by standard and informal tests which might help us better to understand the individual needs of children both as regards motor skill and motor coördination. These tests also were given at the end of the year. Fifth, a thorough examination was made of published material bearing on this subject. Sixth, as many songs and stories were collected and used as would help to build up an interest as well as give the best sort of information. Last, and perhaps most important of all, it was planned that this health program should be a very real part of the content developed from the children's own interests, and stimulated in a way to meet individual need and growth.

The next question was to decide on only such particular health attitudes as could well be undertaken with some degree of assurance that desirable attitudes might result. This of course should and did depend on the difficulties most prevalent among children of this group.

The several conferences with each parent provided us with many of these difficulties, the physical examination with others, the tests with still others, the close observation and living with the children with a number. Many of the difficulties which appeared to be physical had an emotional origin. These came to light through informal tests or situations.

Again, in the group of seventeen, eight showed some tendency toward speech difficulty, two couldn't pronounce certain letters; two talked very indistinctly; two talked with foreign accent and construction; one lisped, and one had a very harsh husky voice. Tests were given to these children to discover if possible how much would remedy itself as development progressed and how best to help the others in order that it might not prove a future hindrance to the child.

Thus it was decided that nutrition, posture, relaxation, development of the big brain muscles and speech, with a careful record of the height and weight of each child should be the big topics with a group of children such as this one. The question of eyes, ears, and throat was pretty well cared for by school physician and the home. Aside from these special topics, and as a result of the delightful coöperation of the special teachers, there were many general health attitudes brought up and discussed. By dropping in informally at group discussions or at the time of midmorning lunch, such questions as the right temperature, open windows, number of blankets to use on the bed, the kinds of clothes that keep one warmest in winter and coolest in summer, questions of order, beauty, and cleanliness, were all discussed in a delightful manner.

The points to be covered which it seemed might be possible to carry out and check were as follows:

Nutrition

To drink plenty of water.
To eat cereals, vegetables, fruits, and simple desserts suitable to this age.
To practice cleanliness in working with food; and to achieve order and beauty in connection with the meal itself.

Posture

To choose right kind of chair and sit in it properly.
To stand correctly.
To walk and run correctly.

Relaxation

To learn how to sit or lie down with muscles and whole body relaxed.

Big Brain Muscles

To help each child to develop his whole body naturally and rhythmically.

Height and Weight

To weigh and measure each child every month if possible but at least five or six times a year.

Speech

Based on results of the test to carry on any remedial work, such work to be a part of some phase of the day's activity.

Resistance to Infection

To do what all schools and homes should try to do, help each child to develop the power of resistance to contagious diseases.

Procedure

The method of carrying out this program was as follows: In the nutrition program it was definitely decided to get as far as possible the right attitude toward the food best suited to this age, and to do it without particular mention of its good or bad effect on health. Thus, at first, trips were made to the home economics room just to get acquainted with the room itself, the teacher and the equipment, to think of this as a part of the whole school and to lead the child to think of working in such a laboratory as a real privilege as well as a joy.

Second, each child had an attractive apron, all alike in pattern but distinctive in decoration. These aprons were made by the eighth grade pupils and there was a very delightful bit of coöperation between the two grades.

Third, with the aid of the school physician and nurse and home economics teachers a list of foods was selected—cereals, vegetables, fruits, and simple desserts the procedure for preparing which was as simple as possible. We were not particularly concerned with skill in the preparation, but with joy of participation. Twenty-five trips were made to the household economics department and twenty-three different things were prepared. Just one kind of cereal or one vegetable or one simple dessert was cooked each time. The time for preparation did not exceed one-half hour and the food was always served in the place of the regular midmorning lunch.

Fourth, all other work in connection with the preparation and serving of this lunch was the privilege as well as the duty of a special committee appointed for this purpose.

Fifth, the lunch time and the lunch table at this time were

made particularly attractive, and the period a social one. The effect of the group approval upon individual disapproval of any particular food was very apparent.

Sixth, pet bunnies and white mice illustrated the fact that some young animals live on the same kind of food as children. Lectures and pictures by Dr. Fisher of the Museum of Natural History illustrated this fact further.

Seventh, stories were told about the different kinds of food we cooked, a Japanese story when we cooked rice, a vegetable story when we cooked vegetables, such as the Bible story of Daniel and lentils, or the story of love apples if we were cooking tomatoes.

Eighth, preparations and plans were made for the time when we could invite someone else to enjoy what we had so much enjoyed. Three parties were carried through beside taking samples of cooking to different members of the faculty. Not only did results show in the children at school but evidences came of results as they extended into the homes.

In the active program of the morning, chairs were not used for any length of time, but in order to enlist the children's interest in right posture, very early in the year time was taken to have the children understand clearly how to know when they had selected the right chair. In the midst of one such discussion the music teacher came in and with the children made up the following song and tune:

"Let us remember to sit up straight
And keep our feet on the floor
With our knees close together
And our hands in our laps
Resting quietly."

We sang this for a few times and after a while just the tune on the piano was enough to quiet and relax the children.

The teacher in remedial posture dropped in one day with a remark, "Who would like to be a pancake?" Jane replied almost in the next breath, "If you are a pancake you have to have a thin stomach?" The music teacher followed this up with a little song:

"Who's a pancake? (6 *66* 4)
Who's a pancake? (6 *66* 4)
Sitting straight against his chair." (*33* 44 *33* 2)

Or, changing the last line to:

"Standing straight against the wall."

Another day it would be a demand for "rubber bands" which gave a chance to think of the stretching exercise to help good posture. Stories of the street vendors and water carriers of the Near East and pictures of them walking straight and gracefully helped to increase interest. Stories and pictures of Greek heroes would also be helpful.

The relaxation program came to a culmination in a rest period. Canvas cots and attractive wool blankets were in the room. Every day after the midmorning lunch the children brought out the cots, put them up, covered themselves and rested. The actual rest period was about fifteen minutes each day. After the first few weeks it took the children scarcely more than five minutes to put up the beds and after the rest to fold them up and put them away.

Preparation for this came in many ways throughout the day by games with rag dolls, "playing possum," periods of quiet or, as Robert Frost puts it, times to "acquire a listening air." The results, though not perfect, were most helpful, particularly when comparison was made the first part of the year with the last. Just the ability to regularly arrange for this period in the very midst of a stimulating environment was an achievement and a habit which, if continued, might well stand in good stead later in life.

With regard to the big brain muscles, out of the seventeen in this group, nine were not up to the scale for this age. Close observation of these children in their activities, results of the motor tests that were given, and conferences with parents helped to explain this in the following ways: Five to emotional difficulties, which in some cases could be traced back to physical causes; two to immaturity; one to too much adult supervision and direction, and one partly to physical causes with other factors involved. During the free activity period, the daily

outdoor period, and the rhythm period three times a week there were many opportunities to help and guide these particular children, as well as to help all to develop normally.

With regard to speech, with the eight children who had some speech difficulty, opportunities were made in school and at home to carry out the recommendations as a result of the speech test given.

A Health Program Incognito

Finally, to come to what perhaps is the most important and suggestive part of the program, that of making it a vital part of the rich content developed throughout the year: By following the children's interests, broad and varied enough to include every member of the group, it was possible to carry out a health program which would not appear as a program except to the initiated. The subject matter developed into three phases of the children's interest in home life: Home making and home building, environment of homes, and pets—good soil to develop a health program.

Their interest in building individual homes culminated in building and furnishing a home for the group. Their interest in their own immediate environment stimulated by trips and discussions culminated in a little play, "The Boats We Saw on the Hudson River." Their interest in pets changed from always talking about their own pets into bringing all kinds of pets that could be watched and studied by the group. Their interest in Nature grew from an individual interest in flowers to the making of a garden that flourished for five weeks in our room, a joy to the whole school.

The outcome of this program at least made one eager to try it again and develop through the mistakes as well as through the results of the year's experiences. The essential and indispensable part of the whole program was, however, the charts, records, and checks that were kept. Without such records the program would be difficult if not impossible to carry through successfully. They served as a check and a pointer to the next step. Thus the physical examination and motor tests at the end of the year were checked up with those

at the beginning of the year. Profiles made for each child as results of the first set of psychological tests were compared with those at the end of the year.

But, although not so objective, the most interesting part was living and working with the children themselves, watching the progress in the art of living and working happily together. The progress made in developing health attitudes was inextricably tied up with all the other habits and attitudes the children were developing day by day.

Instead of "reports" at the end of the year a personal letter was sent each parent, telling of the progress the child had made. Together with this letter was sent a brief outline of the year's work as it developed. To the children a letter was sent, with suggestions for the summer, many of which would deepen and enrich what had been discussed and experienced through the year. With this was sent a list of the recipes that had been used and lists of interesting books which they would enjoy hearing.

Each sincere attempt to enlist the children's interest and help develop better health attitudes would be of course:

"One more step toward the
Complete accomplishment,"

As a result there would be more children:

"To laugh in the sunshine
To gladden the world."

Miss McCormick: I should like to ask Mrs. Bliss more about the preparation of the foods.

Mrs. Bliss: The preparation of the food was done by the children to a certain extent, although, as I said, that was not our primary interest because these were five-year-old children, and even the directors of the school wondered whether it was right for these five-year-old children to go into the laboratory and work with the food. We wanted them to get the interest and the right attitude toward the food. Wherever it was possible to do it within that twenty-five minute period they did as much of it as they possibly could. Where we

found it was going to take longer than that to prepare it, we let the household arts teacher do as much of it beforehand as would make it possible to do it within that time. We didn't want them to spend more than about twenty-five minutes in the laboratory. Sometimes it was divided up, and sometimes the committee went up and did part of the work. But as a group we did spend that time and did as much of it as we could.

The tables had about six or eight inches knocked off at the bottom so that they came on a level with these five-year-olds and they could work on them.

Miss Helen G. Campbell, Demonstrator and Lecturer, Dairy Branch, Department of Agriculture, Ottawa, Canada:

I should like to know what foods were prepared.

Mrs. Bliss: We had cereals and fruits and vegetables. They were gone over with the school physician and also with Dr. Wood and the school nurse. All three of them helped to make the list out.

Chairman Cunningham: I think this report most suggestive. We are going to hear briefly from Miss Curran who will tell us something about how this kind of an organization can actually be put into effect in a public school situation.

Miss Emily C. Curran, Supervisor of Health Teaching, Nassau County Committee on Tuberculosis and Public Health, Mineola, Long Island, New York:

Two years ago, serving as educational interne at Lincoln School on the same staff as Mrs. Bliss, the same doubts were in my mind as to whether some of these very wonderful things would really work in less favorable situations. In the past few years I have been working in public schools in Nassau County, New York, in decidedly less favorable situations, and I have taken some of the things I have seen tried out in Lincoln School and adapted them and have seen them work in these public schools.

I am going to take one particular project, the nutrition problem of little children, and tell you something of the situation and the results we have felt we have from that project.

The class of teachers in the school were average; occasionally a very good teacher, and occasionally a very poor teacher. The children came from poor families, largely foreign, and in the class there were thirty children, a small class for that school. The parents were uneducated, but they were devoted to their children and had been trying to feed them the things that we had talked about at school. But their attempt to teach Johnny to eat carrots was to resort to corporal punishment if he didn't, with which of course we didn't agree.

The equipment for the cooking project was as follows: The classroom was a partitioned off corner of a large assembly room. Across the hall was a small teachers' room with a sink, a small table, and an electric plug in the wall.

We purchased an electric plate, some dish cloths, a dish pan, and the children brought some forks and knives and spoons. The teachers and the children brought some food, and we used some commercial samples, such as cereals.

The class time allowed for the actual cooking was a half-hour a week, not including the time for their parties which came usually during mid-morning lunch period, or the time given to cleaning up afterwards when only a small part of the class served as a clean-up committee.

With advice, the classroom teacher conducted a large part of this project herself. She was responsible for the hand-washing and the general preparation before the cooking. Because cleanliness was one of the greatest problems in this school we emphasized that part very strongly. She supervised setting the tables. We used paper towels for doilies. She was the only teacher in the room when they were eating the food, and she was responsible for the atmosphere during the meal and for the committee that had charge of cleaning up afterwards.

The Children "Help" Cook

The health worker helped prepare the food. I must admit she did most of it, but she tried throughout to make the children think they were helping as much as possible. That possibly wasn't very much, when you have thirty children in a small room working over one electric plate. The health teacher con-

ducted a discussion of the food while it was being prepared, and occasionally mention was made of why she was cooking this particular food, and why it was good for them, but usually it was how pretty it looks, and how good it smells, and what will we put in it to make it taste good. Occasionally we checked up with the children as to whether during the week they prepared the foods of the previous lesson in the homes.

The results were very favorable, I thought, in that all the children with one exception ate everything at all the lessons with relish. One child, little Amelia, said to the teacher, "I don't like tomatoes." The teacher very wisely said, "Well, Amelia, you will eat them. They are going to taste good." And she paid no attention to her, and when the dishes were cleared up, Amelia's dish was as empty as the others.

Another result was the response of the parents, and the opportunity of going into many of the homes. Mothers kept asking what we were cooking and what it was all about, and showed a very great interest. They didn't know how to cook these things so that the children would eat them and that made me realize the importance of sending some sort of a cook book home. The staff of nutrition workers put the recipes in as simple form as possible, had them mimeographed and bound in bright colored covers, and we sent them home to the parents.

This year the project has been used in other schools in Nassau County. Some of them were better equipped and some of them were very similar. In all cases the parents have been just as interested and the children have responded with the same interest in eating the food and liking it.

An Effective Cook Book

Again the cook book was developed and sent home to the parents. I have a few of these cook books and I will run through and tell you what they contain. It has a rather amusing little cover. Inside on the first page there is a letter to the mother:

Dear Mother: Do you like our cook book? We have eaten some of these foods at school and like them very much. To grow big and strong we need three or four glasses of milk every single day;

one or two nice vegetables besides our potato; some fruit; and a good hot cereal for breakfast.

Will you please use our cook book very often?

Then there is a blank for the child to sign his name.

Then follow simple recipes with illustrations, some of them drawn by the children and copied on the mimeograph, and then there are given seven healthful dinners for children, using the recipes given in the cook book.

Dr. Alvin Powell, Director, Health Development Department, Public Schools, Oakland, California:

I am interested in that Amelia who wouldn't eat tomatoes. Every once in a while we come up with a rather terrific jolt to find that the five-year-old or the seven-year-old has some instincts which have been helping him which we have been trying our best to break down. I don't know about Amelia particularly, of course, but people working with this are telling us now that there are some children who have definite idiosyncrasies to certain foods. A tomato is one. There are children who get a definite stomachache after they eat a tomato. They probably couldn't tell you that it was the tomato that did it.

Chairman Cunningham: Dr. Galloway,* will you talk to this question of the integration of activities and materials?

Dr. Thomas W. Galloway, Associate Director, Division of Educational Measures, American Social Hygiene Association, New York:

My technical experience does not give me any right to speak on the general subject of the correlation of health work with other types of school work. I have, however, undertaken to study the subject in one particular phase of health, if you will allow me to expand the term health into somewhat unwonted proportions. We are conceiving nowadays in America that social hygiene relates fundamentally to the health of two biologically social functions,—reproduction and sex,—and our problem has been to work out some sort of an approach to

* Deceased, July 16, 1929.

this which would enable the schools to make their contributions to this aspect of health.

While I cannot speak of the need of integration of health as usually conceived with the ordinary work of the school, I can and do speak with profound conviction as to the necessity of integrating anything in the nature of sex education, sex character education, if you will, looked at as a health measure, with the subjects that will properly carry this kind of material.

We do not believe at all that this sort of work ought to be put out by itself as though it were something distinct from life. As a part of life we think that the handling of it ought to enter into education for life and in connection with all those studies which can appropriately be called life studies in the curriculum. We do not believe that special people nor special courses should be given to convey this sort of culture or special sorts of activities, to give practice in this particular field of health. We feel the art of living in the school itself, and the art and science of the teaching in the school itself, must be the channel, the vehicle to carry this particular phase of human need.

Education for Life through Nature Study

Of these various subjects which in the early grades may serve this end, it seem to me that nature studies, that is, the life aspects of nature studies, are of supreme value and importance.

In the first place, it seems to me that the nature study of the grades, when we really come to deal with it scientifically, will enable us to help the children to form sound habits and attitudes in relation to learning and in relation to thinking. Doubtless many of you have had this sort of experience. A physicist, who would not in the realm of physics undertake to make a generalization that wasn't supported by facts, will, when he leaves the laboratory, leave behind him his scientific attitude and scientific methods just as he leaves his laboratory apron, and when he deals with the problems of life he doesn't do it any more scientifically than the rest of us. I think the

reason for that is that he wasn't caught early enough as a scientist.

My feeling is that nature study in the grades may be so carefully handled as to give this particular attitude I have referred to as the scientific attitude and the method which we call the scientific method.

In the second place, nature study gives us, I think, when soundly and comparatively used, an opportunity for the formation of sound habits and tastes in relation to life itself, which is a somewhat different thing from the earlier point, and it is on this point that I want to lay my chief stress.

I believe that we can bring to the attention of the child practically all the considerations that have to do with sex and reproduction in the human species by way of nature study of a comparative sort, and I want to emphasize the term "comparative" for a moment. Of course the old nature studies simply skipped around from one interesting thing to another and meant very little, either in the way of scientific method or in the giving of accurate information. Comparative nature study would enable us as teachers to take up a series of situations in life and to find how this particular situation is met in one group of animals, for instance, then in another, and still another, and by enabling the child to study parenthood in a whole series of animals,—superficially, to be sure, but thoroughly as far as it goes,—we would enable the child not merely to know a little more about parents than he will gain from his own parents, but to build up an ascending scale of ideas of quality in parents, of efficiency in parents, which would enable him not only to have some information, but would enable him to have a discriminating taste in parenthood, and that is the basis of all sex education.

Building Attitudes toward the Family

In sex education we are trying to build up by way of the parenthood that is, character in the children, understanding of parenthood on the part of the children—gradually attained, to be sure—which will enable those children a little later to become parents on their own part and to be better parents than

their own parents were. That is the cycle of life that we are working on, and it is just because we have in the vegetable and animal kingdom such splendid illustrations, so graded, so persuasive, if handled comparatively, that I think we can do things for the child in establishing attitudes towards his own home, his family, his brothers, his parents, that we couldn't possibly do if we took his own home and studied that and tried to preach with regard to his privileges and duties there.

Finally, we can gain from this sort of comparative nature study, the knowledges which will tend to validate the habits and attitudes which we have been building up in this ascending array of nature situations, and I think that is essential. I think it is perfectly possible in the grades to give knowledge enough to enable the child to sense why he has preferred the human home, the human family, the human parents, to the robin's home and parents and family, and the situation with fishes, and so on down the series. We give him a ground for a preference which we want to get within him.

Of course, I can't adequately illustrate this in a few minutes. I had hoped to put on the board in a general sort of way an outline. I had hoped to outline on one side of the board a series of suitable animals for use in some of the grades, and then a series of situations, on the other side of the board, of relationships, of conditions, of processes, and then suggest how the use of every one of these organisms to illustrate each one of these processes could be taken in the succeeding grades and be given so increasingly with meaning, that the child would come to have, through the interpretation that it is legitimate for us to give, an ascending sense of values to back up and validate the habits of thinking and living which we have been trying to portray to him as possible to him.

A pamphlet which has been written just in this vein is called "Human Nature Studies in the Early Grades." This book contains nothing of the ordinary nature study. It contains, however, some suggestions of the kinds of things that I might have written on the righthand side of the board, with the insistence that these various topics be handled not merely for humans but for animals below humans, gradually coming up to the human but including it every time so that every nature

study will lead up to the human species and the kind of situations with which the child is familiar.

I may say that that doesn't sound much like sex education. I purposely omitted any reference to sex structures and sex function and sex pathology. They are not the major part by any manner of means of sex education.

I have a feeling for another type of integration to incorporate this phase of health in the health work that you are doing, and not expurgate your health work. I say I am suggesting this merely to reassure you that it isn't nearly so delicate nor so full of dynamite as you have imagined. Out of one hundred topics useable for teaching purposes in these early grades, four or five of these topics have a certain amount of delicacy and would need to be approached with tact. The remainder you teach in just the same tone of voice, with the same freedom from embarrassment, that you would teach any other health subject or other cultural subject.

Chairman Cunningham: I am very much impressed, Dr. Galloway, with an answer you have made to the question as to differentiation between certain habits and certain experiences which we are preparing for children, and what we would call health knowledge, health facts. Your suggestion that the children have an opportunity to gradually acquire increasing scales of values would, I think, be in line with the various questions raised about telling the whys and wherefores of certain things which we may be planning to have children engage in.

Dr. Galloway: The word "security" has been used by a speaker here as one of the things which we want to give children. The element of security for the young in these various types of families as we go on is a thoroughly good foundation on which to predicate any appreciation, any preference, any liking, any loyalty to the security they gain in their own family.

Miss Helena McCray, Supervisor, Health Instruction in Elementary Grades, State Department of Public Instruction, Harrisburg, Pennsylvania:

I have been asked to make a brief statement of some of the things we have tried to do to help our teachers to realize that

our health program is something that is a part of the whole day's program.

We try to help our teachers by preparing for them a bulletin which includes the outcomes in terms of habits, attitudes, and knowledge, that would help them to see the definite objectives for which they were to work.

We said, "First make a study of the needs of the children." But we found many of our teachers were not prepared to work under such a procedure. I hesitated about making an outline for the teachers because it seemed to counteract the one big step that we had suggested as the first, "Make a study of your needs and fit your program to those needs that you find." But because of the requests that came in we organized this outline program which makes a big objective for each month's work.

It is thoroughly understood that all over this program the word "flexibility" is written, and if a bigger need comes the teacher is to feel free to work on that need.

Another thing is that it isn't necessary to confine that work to one period in health, if she can do it better with her reading lesson or in the morning exercises or with some experience out on the playground. If she has gotten the thought across that we wanted, associated it with the right experience, we are not going to worry about the definite period for that work. That is, in the lower grades. Now, we do say to our intermediate grades, because our teachers are not prepared to do it effectively, they have to have a certain period each week for definite information that is associated with the desired behavior.

Although I hated to use this program, I do find it is helping us. The superintendent can look down that first row and he knows right away some of the things for which we are working. In working with some school directors, they see that they must have water in the schoolroom, if the teacher is going to put on a definite piece of work, such as cleanliness. Then there is another thing: we show the program to the parents. The parent-teacher association has come in so beautifully where it has been presented. Some of them have said, "We didn't sense that Pennsylvania had a program like that."

It is giving people in the agencies outside of the schools a

vision of what we are trying to do. In our schools there are some people who come in to help the teachers. They bring material, and when they see what we are attempting to do they see this material will fit into the project that we have in mind.

Another thing, as we meet the teachers in groups, it is helping the teacher in English to see where she can make her contribution this month because we are trying to work for a definite objective and get results. It is helping the teacher in mathematics to see that he can make a contribution, and so it is with every subject.

Chairman Cunningham: In the last few discussions I have noted three or four ideas that impressed me as particularly interesting.

My reaction to Mrs. Bliss's discussion in one particular instance is whether or not you are going to make these health habits something of which the children are very definitely aware. I noticed Mrs. Bliss made the opening statement that there was no mention of health as an objective.

We have in connection with Dr. Galloway's discussion, the idea of gradual growth in realization of the values after habits have been quite well established, and also the discussion of sex education as typical of all health education in that it is not a course of study. The coöperation of parents with educators in any kind of a project including health teaching is interesting. Miss McCray has raised, among other questions, that of the desirable facilities which the teacher must have in the school in order properly to teach health.

Discussing Health Service

"Our discussion at this point," said Chairman Cunningham, "will take under consideration the subject of health service in the elementary school. Dr. Alvin Powell has consented to act as Chairman."

Chairman Powell: First, since we are to discuss health service we ought briefly to define it.

The country over, health service seems to be dividing itself pretty generally into three distinct parts: protective, in-

formative, and corrective. We seem to have a great many different ideas as to how these things shall be applied.

By protective we mean general sanitation, sanitary engineering, the lunchrooms and cafeterias, and then perhaps the quarantine isolation of contagious diseases and the protective immunization of children. On the informative side, we are finding out what is particularly the status of the child and the teacher, and then reporting these things. The third, the corrective side, is the treatment of defects and diseases and emergency work.

We have all pretty definitely agreed that the third can be eliminated as far as we are concerned. The corrective side, except of course for real emergency, is not essentially a part of the health service of the school. We still have orthopedic clinics which are doing very fine work in schools and we have many departments that are doing other lines of treatment, such as tonsilectomy, etc. But if the service in the school is really an educational service, which I take it we are agreed it is, these have no place in the health service except possibly to show how it can be carried on in the community at large.

I have in mind, particularly, the dental service. In many communities dental service is still treatment to a large extent. But I think more and more we are coming to justify doing it in that we are showing the child and his parents the value of dental work. Just the fact that the children in a class will walk up one after another and wait turns and have a good time in the dental room, is surely an educational piece of work, as it removes a traditional fear and as such it perhaps can be justified for the time being.

I want to suggest for discussion three or four illustrations of this application of the educational method of using health services.

Regular Sanitary Surveys Valuable

I know of nothing that is better for a school system than to have a regular time and method of making a general sanitary survey. Once a year or twice a year it makes a very definite occasion on which the school system looks itself over and sees how weak it is along certain lines.

If we can have a survey that is made by the class itself, and

then one survey that is the teacher's, and one survey that is made by the principal, and then the whole gone over with them by the health department, we have something that makes them so interested that it becomes a community matter. Then, because of the demand of the community, the superintendent can make the necessary adjustments in his budget to correct the conditions found.

Take one example, the matter of light in the schoolroom. I think that there is nothing more striking than the bad lighting that we have in places where we sit and work. There is available a simple inexpensive instrument, called the foot-candle-meter which tells even the child the amount of light that should fall on his desk, and then, if it isn't falling right, where the fault is, is a matter of easy deduction.

In the community with which I am particularly connected, we have enough of these so that each class in the school can have one of these one week a term, the nurses being responsible for circulating them. The sanitary survey was not considered complete until the individual school could make the survey of the light and other things right in its own rooms. The response in improvement in light was almost immediate. It wasn't so much a matter of windows being put in the wrong place and the shades being put in the wrong place and the walls being the wrong color; it was a matter of arranging those shades and arranging the pupils, and putting the teacher's desk in the right place.

I hope we can have some discussion of lunchrooms and cafeterias from the standpoint of their educational value, because surely, unless they have that value to the school, they have no business in the school. They are not a money-making scheme, as many principals have been led to believe, so that they could buy books and pictures and other things.

Informative Health Service

On the informative side, the examination, we have talked a good deal. In another section we were told how one doctor examined two hundred children in one morning. The speaker decried that, and of course it is a physical impossibility. A

doctor cannot make a satisfactory examination of a child in less than fifteen or twenty minutes, even the type of examination which we call a school examination, and funds are not available to have that many doctors in our system. I think it is a good thing if we do devise other means, first largely from the matter of teacher training. There is not any human being, even with a medical education, who can take one individual child and make an examination thorough enough to do as good a job in a day or three days as a teacher can do from a physical standpoint by having the child in her class for a term.

I think the teacher is going to take the physical health service, from the educational standpoint, entirely out of the hands of the physicians except in the individual case in which she wants to know why. The big point in our health service is that the teacher at the present time has not the desire to know the why from a physical standpoint, when a child is not doing well.

One example of that, I saw two or three months ago. I was in a classroom and there was a little fellow down in the middle of the room who looked like an ordinary normal child. He was rather full of fun, and every time the teacher turned her back to write on the blackboard the child would do something or other to upset the rest of the children in his neighborhood. His favorite sport was hitting the child in front of him with a lead pencil on the back of the head hard enough for the child to make a disturbance.

I asked the teacher about that child and she said, "He is the worst child in the room. I never can get his attention at the blackboard." I looked at his health record, and, as you have guessed, he didn't have eyes that could see the blackboard. It was foolish to try to expect that child to stare off at a blackboard he couldn't see, and yet he was bothering her and bothering the whole class.

What is going to be the answer to that? I hope we shall have some very definite discussion on this point. But it seems to me that our first answer is a proper record.

What is the matter with us in school systems? Are we afraid to let the teacher know about the children in the classroom? It seems as though we were. For a long time, and even

now, in some school systems, they will not let the I.Q. be put down for fear the teacher will not have the proper slant on the child, and we are not allowed to have a complete record of the child.

We at least are coming to have a complete record of the child very rapidly, I am happy to say. We will consider the record in detail shortly.

In connection with health service in general we are to hear now from Miss McGrath who will speak on the educational value of the health service in the public schools of East Orange.

Miss Ada Cecelia McGrath, Supervisor of Nurses, Board of Education, East Orange, New Jersey:

In order to estimate the educational value of the health service in East Orange, New Jersey, it would seem wise first to review the method and scope of the physical examination.

There are nine elementary schools with an enrollment of 7700 and one high school with an enrollment of 2100, making a total enrollment of slightly less than 10,000 pupils. There are two physicians, one man on part time and one woman on full time, one part-time dentist, and five full-time nurses.

All defects found are reported to the parent by the physician on printed forms, space being provided for special comments when advisable. These forms are returned to the school bearing comments which are required of the parent—comments vitally important, since they are indicative of the home attitude, and determine the course of action for the follow-up work of the nurse.

Greatest stress is placed upon the examination of the kindergarten child and of new pupils. A printed invitation is sent by the teacher asking the parents to be present at the physical examination of their child on a certain day at a specified time. Fifteen invitations are usually issued for a three-hour session. The average response has been from ten to twelve in our better social classes and from six to eight in the other classes. Parents are interested in these examinations; such an examination is to them merely a logical successor to the baby welfare and preschool clinics to which they have already become accustomed. If the mother is unable to be present, frequently the father, the

grandmother, or an aunt may come. Some parents have stopped at the school on their way to business to express their regret at being unable to be present and have said they would call again on the following day to be told what the doctor had to say.

The teacher is always present at these examinations and acts as hostess, introducing the parent and child to the physician and nurse; she usually makes some comment about the child which opens a channel for conversation between the parent and the physician.

Since we believe that "health is something more than adenoids, tonsils, posture, weight, drinking milk, and taking baths," we feel that the time spent on this first school examination of the child with his parent present is sure to bear fruit. Parents are using this opportunity to discuss their problems—such as various forms of nervousness, irritability, temper tantrums, diet, and rest.

Talking Things Over

The question most frequently discussed is that of feeding the child. "I cannot make him eat," is a distressing cry heard over and over. The young mother of today seems to understand the feeding of infants fairly well. The child of school age refuses infant food and the mother finds it difficult to realize the need of the rapidly growing child. It is interesting to note the look of surprise on the mother's face when she is reminded that it is not enough to appease hunger but that it is also necessary to stimulate the appetite by appealing to the other awakening senses such as sight, smell and taste. One foreign mother who, it was quite evident, had had careful training from an infant welfare clinic said with surprise, "Oh, I see; I wouldn't want to eat food always mashed up!"

That enlarged tonsils could have any possible effect on a child's appetite was a great revelation to a mother of twins. These twins were born in Scotland and during their four years of life had lived in many of the larger European cities. The mother said she had taken them to several noted specialists abroad, as the children had always been underweight. These

specialists had all told her the tonsils were enlarged but she thought, "All doctors say that, these days." She was so harassed by the task of feeding the children that she eagerly seized the suggestion that the removal of tonsils might relieve her of her difficulties. Within a week the job was done and results were beginning to show. This mother has done considerable good in her neighborhood because she has told her experiences to other mothers who were facing the same problem, and they have followed her example.

A question of equal importance is rest. We find this a matter of great concern as it touches both the social and economic living conditions of today. Not infrequently much time is spent trying to have the parents see that the symptoms of nervousness and irritability demand rest as the only cure. It may involve a complete change in the family routine but it does bring results.

How often do we stop and ask ourselves, "Does it pay? Is it worth while? Do these parents profit by our efforts, and is the time well spent?" We have found in East Orange an answer to these questions. Of course we look for improvement in the children, but even more satisfying is the fact that the school is coming to be a health center, more advanced than the baby welfare station and the preschool clinic, but as inevitably drawing to itself the parents, for consultation, for suggestion, for advice. From this development we have come to believe that it is wise to spend even more time with the younger children since the interest of those parents who were present in the beginning continues and grows with each year. They know what the school is doing, understand our procedure, and feel confident that any change in their children's condition will be brought to their attention.

To us this is a practical demonstration of the educational value of the health service in the public schools of East Orange.

Miss Beatrice Short, Assistant Director, National Organization for Public Health Nursing, New York:

I am interested that the discussion of health service relates it to one of the criteria, that all health activities and materials should satisfy the fundamental educational objectives. After

my experience over a period of many years, especially in connection with the health service of the schools, I feel that we do want to stress just that point. I feel that we want to make our public health work in the schools measure up to those fundamental educational objectives, and in relation to my own particular activity, I would want the activities of the school nurse always to measure up to that criterion, so that whatever the nurse may do will make a contribution to the health education of the student whom she is serving. I think that that is something that we cannot stress too much in relation to the health service in the schools.

"The cumulative record of the child from the time he first enters school until he leaves school," said Chairman Powell, "is the most valuable thing we can have as we have already indicated. We will now discuss it in greater detail." Chairman Powell stressed further the information that this record might contain.

Chairman Powell: We have to take one more step than just putting the health record by itself in some nice file. It has to be the complete history of the child. Certainly the punishment of the child in school, or his absence from school, or the difficulties that the teacher is having with him, or his difficulties at home that the counselor finds, should all go together in one file that will be available in an indexed way so that anyone can see the why of things. If the child has bad teeth and enlarged tonsils, and is a truant and is not doing very well in school, bringing all of those things together at least will make us say, perhaps this is due to the tonsils. Then, as you know, the doctor who is dealing with large numbers of children will say, probably it is not the tonsils, but it is the teeth, or other infection back of the tonsils; let's get those things cleared up and see if it doesn't clear up his truancy. We are bound to do that if we bring all these facts together. If they are kept in separate files it just doesn't happen.

So I would like to hear from you about the cumulative records, what you have done yourselves along those lines and what the objection is to them. Some of our counselors now absolutely refuse to put into our cumulative records the results of discussion that they have had with a mother, for instance,

if it was what they call personal in nature. Now, of course, if it is personal in nature, we do not want the other children of the school to have it, but a physician does not hesitate to put in his own records, and you in your records, the things that are vital to the individual.

Miss Chayer, will you discuss how the cumulative health record may function in the articulation of health service with the rest of the school activities and with the home?

Miss Mary E. Chayer, Supervisor of Nurses, Department of Public Schools, Des Moines, Iowa:

We have the cumulative record which starts with the kindergarten and goes up through high school, but I am sorry to say this cumulative record is just a physical record. We are working on something more complete, but there are so many varying ideas of what we should put into such a record that we have not evolved it. If any of you have, I shall be glad to see it.

Parental education articulates very well with our cumulative record. Our kindergarten specialist is also our specialist in parental education. She has been holding parental education classes particularly for the study of the preschool and the kindergarten child. This specialist is very much interested in the physical, social, and mental hygiene side. There are usually about forty children in each kindergarten, and at least ten or twelve mothers in each kindergarten are enough interested in studying the child to come to a regular study group twice a month, to study the physical and mental condition of their children and ways of helping them.

The cumulative record from our physical examinations is one of the big factors used in this parental education work. The examinations are made in the third, the sixth, and the ninth grades and are made by physicians; in the intervening years the inspection is made by the nurse, and she sends to the physician any child who needs particular attention.

The nurse interprets to the parents who do not come to the physical examination the results of the examination. But because of this very splendid parental education movement through the kindergarten we have as many as 75 per cent of the parents present at the first examination. We get a record

from that which we are trying to pass on, but we have not decided what is the best thing to pass on in our cumulative record.

Then, as I say, in the third grade again we have tried to have parents present at the examination and have them talk with the physicians.

We have only part-time physicians. Two hours each morning are spent by our physicians in the schools. We cannot have an examination throughout the whole system every year, and that, of course, is why we have picked out certain grades.

An Organization that Integrates

The integration of the work of the teacher, the nurse, the physician, and the parent, everyone connected with the health of the child, is perhaps taken care of largely by our method of organization. Still, we have a director of health who has been with us for eighteen years who has a very broad vision of school health work. Under his direction he has four bureaus: the bureaus of medical inspection, of nurses, of physical education, and of dentists.

Whenever we have a physical examination, the classroom teacher, if we can get her or him, the teacher of physical education, the nurse, and the physician all are present. If at any time any of these people cannot be present they are informed of what has been going on. Then the nurse makes a sheet record for every teacher of the particular responsibility which she may have in following up the record, so that she has that before her. She knows just how many children in the room need to wear glasses every day, or those who need to get them. She knows how many need extra sleep, or need to form particular food habits which the parents have not been able to get across to the child. Then the teacher and the parents work together in trying to get the right attitude in the children in the matter of food and rest and general hygiene.

Chairman Powell: I will call for a discussion by Dr. Gudakunst on this cumulative record, where it belongs, who should see it, and what should be in it.

Dr. Don W. Gudakunst, Director School Health Service, City Department of Health, Detroit, Michigan:

I have here a copy of the record form which we use in Detroit. It is not perfect but we think it has certain features worth presenting. It is a universal school record card.

On one side we carry the complete physical record, a medical history of those things in which we are interested throughout the eight or nine years of child life. On the same card, on the opposite side, we have the Board of Education record of family nationality, language spoken, the scholastic record of the child as achieved each year, absenteeism, some space where the cause of absence may be entered if it is due to any one particular thing or any marked factor.

On the physical record side we follow the child from a period before he enters school through his school life in the intermediate and high school.

Our system, of course, is not complete for the preschool record, but we make an attempt in our own city clinic work to compile our records relative to a particular child in such a form that they can be transcribed readily on the entrance of that child to school.

The teacher's examination, which is an important part of the system in Detroit and which takes place each year, is entered on this card as well as any correction or any treatment of any physical defect. Record is kept of communicable disease, of immunization, and of measurements with mathematical notations of such measurable physical defects as the visual and auditory.

This record follows the child only through the first eight or nine years of his life depending upon the type of school to which he goes. Then it is incorporated in his record for the higher secondary schools.

One phase of the cumulative record system seems essential. Every city that is doing physical examination work of this type with a record, accumulates a vast amount of information that is not used to the fullest extent. In many instances it is brought together by schools into one central office where it can be tabulated, analyzed, and studied, so that the health

trend, if I may call it that, in a particular school locality or section of the community studied, can be evaluated.

This entire record is transcribed to a sheet for each group in each school, and kept as a summary sheet for that school. It is not kept in the school building but it is kept in the central office.

To return to the record itself. This record being a part of the educational and academic advancement system, is kept in the teacher's room. The child learns to carry this thing around with him on many occasions. Whenever a problem of discipline arises, this record accompanies the child, so that there is an entire medical and social history as far as we go for each individual.

When the psychologist is examining or interviewing the individual child, that psychological test is put down on the same chart as the physical examination. The I.Q. is noted there, and the child's achievement record is placed on this form, which gives therefore very complete information.

When the medical examination is conducted, when the physician is interviewing the parent, he has this card and he is able to talk to the parent much more intelligently if he can at a glance determine whether or not this child has had communicable diseases, whether he has an I.Q. of 50 or of 110, and whether or not in past years he has had diseased tonsils, or bad vision, or whether these particular defects have just cropped up this year. We find such a record indispensable to the operation of our system.

Chairman Powell: One thing that I am sure many of you thought of right away was that this card is carried around by the child himself. I wonder how many of you let the child handle his card himself, or how many of you think that this is a sacred record that should not be put in the hands of the child.

Dr. Gudakunst: A copy of this sacred record is kept in the principal's office as a set of the valuable archives, so that if the child tears it up as he does sometimes, the record is not hopelessly lost.

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Dr. LeRoy A. Wilkes, Director, Division of Medical Service, American Child Health Association, New York:

We had a cumulative record which we developed some years ago in New Jersey that had everything in it, psychological, educational, medical, nursing, follow-up, and so forth. Instead of the teacher having this voluminous, to her almost meaningless thing, it was simplified in order that she could see if the child improved. I think it is very possible to take this large and desirable cumulative record and keep it at some central point where the full cumulative effect can be studied from this data and instructions given to the teacher as to what she can do for any particular child.

Dr. Palmer: If I understand what is meant by the new type of cumulative record, it means bringing in not only the physical examination but certain educational ratings and comments, and also social, emotional, and other factors.

While we recognize the desirability of that broad information, it means a lot of work. We have a good deal of criticism of the amount of recording that is already going on. There are several matters that are real obstacles. After the material is obtained, who is going to use it? Who is going to interpret it? I would only hope that we think of this now on an experimental basis, or encourage its use among those such as Miss Chayer who are ready to use it, and who can try it out profitably, and that we do not go on record as recommending widely the introduction of this type of cumulative record into a school system scarcely in a position, as I see it, to receive it at the present time.

The American Public Health Association has a committee on school records and forms, and there is a record form that was put out with a description in a recent number of the American Public Health Journal. That is a very brief form of cumulative record that might have some suggestions worth while.

Chairman Powell: There seems to be a considerable difference of opinion with regard to the cumulative record. I know that a complete record of an individual child is not used altogether in very many places.

Dr. Wilkes: The point I want to make is that after you do have this cumulative record there should be some coördinating agency which will have responsible charge of it. This agency can give to the agency applying for it, not the record itself in its cumbersome form, but that information about which the inquirer is immediately concerned.

Chairman Powell: Dr. Wilkes has just made the point that this record must be a source record, and the person applying should not have to wade through the whole thing. The material that he wants should be easily available.

Dr. Wilkes: They have supervisors about every three grades, possibly the supervisors of those grades might have the information in their offices. A summary of the things that the teacher could do could be given to her, and that could be all that she would be concerned with.

Chairman Powell: Are we all agreed that there shall be a central record if it is physically possible, summaries of which would be given to the appropriate people?

The next question that occurs is, who is to have access to the material? Is anyone who comes in to any of the teachers or the supervisory staff to have access to all of this material? You give the teacher her summary sheet, but suppose it says there has been a certain difficulty that the principal has handled and he may have put this in the complete record. Should the teacher have access to the whole record if she wants it?

Dr. Wilkes: If it means something to her I see no objection.

Chairman Powell: Do you all agree?

Dr. Abby Porter Leland, Principal, Public School 157, Manhattan, New York:

I think that it should depend a good deal upon the individual teacher. I have a staff of about sixty.

I think even the weakest teacher should be able to read such a record and taught to understand it. I think they would be much better teachers in the classroom. But in large city classrooms we all have some people who are weak in judgment, and I think there are people that I should exclude from reading

such a record. Such teachers are unsatisfactory and eventually they will be dropped out.

Miss Bell: Is it not a question of what purposes we want these records to fulfill? I think that is the beginning point. If it is for the understanding of the people who are going to deal with the children, is not the teacher the most concerned with the children in the school? Should it not fulfill that purpose almost first, and then she should understand that the record is to be used to give her a better understanding of the individual child? If that is a purpose, how can these records be interpreted to that person? It should not be just, "Well, here they are," but, "Here they are and this is what they mean in each individual case."

Dr. Davidman: The thought has been expressed that keeping a cumulative record would impose a lot of extra work on the teachers. This record is not something new but it is a revision of something very old. In New York City we have a card at least twenty years old and badly in need of revision. One of the things, I think, that we are trying to do is to decide just what that revision is to be, just what factors are to be included. In other words, it is not adding another burden because that work has been done again and again and for many years in many cities of the country. It is simply a question of modifying the old card which we have found to be unsuitable for present purposes and putting on it certain facts and certain information which will not only enable the teacher in the classroom to cope with the problems arising in handling the children, but will enable the principal or the assistant principal, or whoever is to meet the parents, to handle intelligently parents who come for information and want to know wherein they can coöperate.

Dr. Palmer: The cumulative record, as I conceive the cumulative record, including the health record, emotional and social history, certainly is not very extensively in use. The record that I have specifically in mind is one Miss Whitney kindly let me look over. I should say there were from ten to fifteen sheets of paper with detailed places for detailed records, family history, occupation, social history, and so forth. I have never

seen anything of that kind and I was frankly frightened at the idea of recommending it for a school system. I cannot imagine who would gather together that information, or how the material itself would mean very much in a school system with different people filling it in.

Miss Anne Whitney, Director, Division of Health Education, American Child Health Association, New York:

Since Dr. Palmer has referred specifically to a particular record, I think it is only fair to state that this tentative record is on mimeographed sheets. We all know how bulky mimeographed sheets are. It is an experimental record that a certain city supervisor is working with and represents an effort to provide the teachers initially with a large body of material for the purpose of selecting those items which will prove most useful by experimental work. None of us have in mind the recommendation of a cumulative record that would be exactly like the record that Dr. Palmer saw. On the other hand, I feel that most of those items exist somewhere in the school office, and if so perhaps it would be wise to bring them together so that we may get the whole picture instead of having a portion of the picture of the child in one card catalogue and other portions in other cases.

Dr. Palmer: Might there not be difficulty in keeping a record like that up to date, necessitating repeated effort to make the information meaningful? Can you use material six years old without renewing it?

Dr. Davidman: Examinations of children for physical defects are made every year. So the fact that we call it a cumulative record implies that it is checked up and keeps growing, so that by the time the child comes to the 6A, let us say, he has not only the record of 1A when he entered, but he has on the card 1A, 1B, 2A and 2B, or records for at least once a term. It is not a static thing at all. It is a growing record of what is continuing to be true, what is being corrected, or what needs further attention.

Chairman Powell: I do not think we want to lose sight of the fact that there are two kinds of things that we are talk-

ing about. Accumulating the record is one thing. Accumulating the child's history goes along with it. These things will be there chronologically.

Necessarily there must be some way of indexing the record and bringing it up to date, and the teacher must know what is on file. We are all agreed it would be a good thing to bring all of the material concerning the child that is worth keeping together into one file, if that is physically possible in the school, and that it would be desirable for people who are having direct contact with that child to have a summary of this available material.

Miss Whitney: The result of this discussion is then an expression of the group in favor of the principle of the cumulative record, not what should go into that record, but having what is known about the child all accumulated in one place and added to as knowledge of the child increases.

Mental Health and the School Program

"At this point," said Chairman Powell, "we will leave the discussion of the cumulative record and turn to a special aspect of the health service. I will ask Miss Katharine Ecob to discuss for us the mental aspect of the health examination."

Miss Katharine G. Ecob, Executive Secretary, New York State Committee on Mental Hygiene, State Charities Aid Association, New York:

I need not tell anybody here that mental hygiene cannot be considered as one subdivision of health work, although I think even the medical inspectors and nurses are inclined to divide the child into districts. They say they will do such and such to the lungs and the ears and so forth, and the last question of all is, "What does the child need above the neck?" But, in fact, it is rather advanced even to consider mental hygiene in that field. It is a very new subject and the schools have ignored it almost entirely.

I think the first step in introducing a mental hygiene program in the schools is to try to bring about a change of attitude on the part of the whole staff. The reason that I say that

instead of the adoption of a wholesome mental hygiene attitude is that almost universally the school attitude has ignored mental hygiene and the changes necessary to bring about the desired attitude.

When we say the word "hygiene" we think of open windows and good food and vegetables, and brushing the teeth, and so forth. But when we say mental hygiene most people still think of mental disease. They do not think of it in terms of mental health.

Mental Hygiene General in Application

In order to bring about true mental hygiene it is necessary to bring it into the beginning of the curriculum. It must be modified for each child. The teacher's methods and procedures are for all children, not only the few children selected by behavior as being mental cases, problem children, or retarded children, and so forth. Along with the modifications, of course, would be special adaptations of the curriculum to allow for differences in intelligence, such as slow-moving classes and rapidly advancing classes, and also differences in methods in the classroom, such as modifications of discipline and activities. Probably in the next five or ten years teachers who are complimented on their discipline and order in the room will be considered objects of suspicion. Why should not a teacher be able to teach in a certain amount of disorder that is from activity and not restlessness? Teachers will have to learn to teach children and not the subjects, and the aim of the school, of course, is to socialize the child and not merely to turn out children who can pass certain examinations.

This objective involves another, hygiene training and child development in the teacher training schools. Of course the subject is a whole subject in itself and I can only mention it. The schools are now creating many of their own worst problems. They expect to treat all children alike, and yet they know that all children are different. For example, there is the problem of retardation. We know the children learn at different rates, yet we hand out this particular educational standard and expect all to swallow it with equal rapidity.

Retardation is created in the schools. It does not exist in other places. There is no such thing as retardation in industry, for in industry there is something for everyone. If an individual cannot find a $10,000 job, he can find a $5,000 one; if not that, he can perhaps earn $1,000, or do something entirely different and at least make a living and fit in somewhere in a trade of some kind. There is no individual except the most unstable who cannot make a small contribution.

In the same way the schools create, or rather increase, many of the mental difficulties of the children by the rigidity of the procedure. We take a six-year-old child who is accustomed to a great deal of activity and is a great talker and put him in a classroom and immediately require him to be almost mute and inactive, and of course that is a great adjustment for the child to make and you cannot expect 100 per cent success from any such crude procedure.

Finding Out Individual Needs

The change and the modification in the curriculum must be based on the needs of each individual child. We can only find out what the needs of the individual child are by individual study of the child. For this, every school system should have available psychiatric service, psychological service, psychiatric-social service, or some equivalent to each of these groups. This kind of service should probably be begun even before they go to school, but if not then, at least as soon as the child reaches the school.

Of course, any such program involves very serious training problems. Psychiatry is only beginning to be taught in the medical schools, and there is that far-reaching problem that we have at present very, very few psychologists and we will have to turn out more of them. In most school districts there is no psychologist within perhaps a hundred miles. Although many teachers have accommodated themselves to this field and are doing quite well, it is very important to have this work done on the same basis that the psychiatric work is done, that is, by having high-class and highly-trained people.

We must also have the coöperation of the homes. There is

no use in having perfect mental hygiene conditions in the schools if the children go to homes where the reverse is the case. It is the same problem that you have if you teach the child the value of fresh air and give him the benefit of fresh air in the school and then find that he is sleeping every night in a room where the windows are nailed up from the first of September until the first of April.

When we consider the child's behavior, immediately we have to consider the motivation, and you have to go into the child's home. That is the particular province of the visiting teacher and probably the school nurse, if the nurse is assigned to that kind of work. Unfortunately, the units now available for this work are very, very limited. There is hardly any system in the state that has adequate psychiatric service in the school. Rochester is probably the best. They have a large child study department and they are not limiting it just to the problem child but they are trying to help all children. However, if an effort is made the school can get some psychiatric service even if it is only a traveling service, and that is better than nothing.

Advisory Service Essential

One of the greatest problems in mental hygiene in the school is the problem of following through what has been decided upon for the care of the individual children. If this work is left entirely to the school nurse, as it is in some cases, it is almost certain to be badly done for the reason that the nurse has not been trained to do this kind of work. In fact, her training leaves her with rather an objective point of view and it is hard for her to grasp the mental hygiene point of view.

For mental hygiene it is necessary for the children to have constant advisory service, and this should bring together all departments of the school,—the teacher, the principal, the psychologist, the dean, the visiting teacher, anyone who has any relation with the child. This would enable one person to correlate all that is known about the child and also to advise with different people who come in contact with the child how best to help him overcome his difficulties or make the best of his aptitudes.

It is said that the aim of education is to fit the child for successful living. The object is not the acquisition of subject matter but the development of attitude and the formation of habits. Now we cannot teach "unselfishness" in the school, but we can create situations in which the child will acquire unselfishness. It does not do any good to say that we must not be selfish, but if you put in situations where the child will derive satisfaction from being unselfish, of course you are cultivating an attitude that will last through life in other situations. This can be seen in an exchange of toys. Some children simply will not exchange their toys, but if you create a situation in which it is agreeable to share the toys, then that ceases to be a duty and becomes a pleasure.

In schools we have often seen opportunities of this kind overlooked. Children, for instance, are placed in positions in which the rest of the class will consider it a duty to tell a lie, and the teacher really forces that situation. For example, a teacher was writing on the blackboard and someone threw a piece of chalk. She turned around and said, "Who threw that piece of chalk?" Of course, several children knew and she began questioning each individual child. "Did you? Do you know who threw it?" One after another they refused to tell and the children heaved a sigh of relief as she finally made the rounds of the room and no one told. The few children who knew were really held up as heroes to the other children in the class. They thought they were doing the right thing in not telling. On the other hand, she was encouraging them to tell a lie. We would call this very poor mental hygiene.

School Responsibility toward "Problem Children"

Why did the schools ever get the idea—I do not mean all of the schools for of course you find everywhere splendid teachers and splendid officials of every kind, but it seems rather current—that the schools expect to teach only the easy children and the ones who do not have bad habits. What would happen if that idea were applied in other fields? Suppose it were applied in the medical field. Suppose I fell ill and I applied to the doctor and I said, "I feel ill. Won't you help me?"

and he said, "I am sorry. You are nearly dead. I don't take those cases." Or suppose I was involved in a lawsuit and I went to a lawyer and asked him to help me and he said, "I won't take your case." That would be a lot of help.

Schools, I think, have rather had the attitude that they need take only the easy cases and that by dropping those that cannot fit in with the curriculum they could keep their classes moving along nicely and avoid trouble. In fact, some principals boast of the fact that they have no problem children. Even in big schools we have so regarded children and take it as a compliment to the school system. We think it is derogatory to say we have retarded children.

In one county I heard of this case: There was a child with an I.Q. of 150, six years old, and the school was going to expel him because he had bad sex habits, I must say I was shocked at the idea. I only protested mildly and said to the nurse that I should hesitate to expel a child with that intelligence and that age, and she said they did hate to but were afraid he would contaminate the other children in the school. It seemed to me that that was about the way they would feel about a scarlet fever case. They would simply drop it from the school. They did not want it. Only this kind of a mental case will probably never get well; it will go from bad to worse. It will be like a scarlet fever case that had run for twenty-five years instead of dying or recovering in a few weeks. What is more important, it would be a scarlet fever case that was getting worse all the time but not limited by death. What would you expect of the future of a six-year-old child, bright, denied an education? That is what it means. Yet that school system would be the very one to say, when the child broke into a house or did something antisocial, "I always thought that child would be a criminal." If this child is so terrible, something should be done to help him make an adjustment. If you are not able to rehabilitate the home and improve his habits, he should be sent some place where his environment will help him to overcome his habits and become a useful citizen.

This has been done with success in many cases that were considered difficult. Of course, the right type of supervision is essential.

The Need for Mental Hygiene

The importance of this mental hygiene is seen if you consider the extreme cases only. Very, very large numbers are involved. Bed for bed, there are the same number of beds for mental cases as there are for all kinds of physical ailments together. If you made a row of beds on this side of the room and another on the other side, all these beds would be for cancer, these for tuberculosis, these for heart, and these for accidents, and bed for bed there would be the same number on the other side for the mental cases. We do not want to think of it in terms of mental disease, but we know that for every actual bed in the institutions for mental cases there must be ten cases in the community that need mental hygiene of some kind, and we know that everyone in this room, the speaker included, can be benefited by mental hygiene. At least 10 per cent of all school children need some kind of mental health service. Of course they all need the benefit of broadening and positive mental hygiene, but at least 10 per cent need some corrective mental hygiene.

We might put it, why should we take the time to correct all his physical defects, and inculcate in him the idea of physical health that will carry over all his life, if the child is going to be so depressed mentally that he will commit suicide before he is twenty-one? Why should we stress so the correction of physical defects if the child's whole life is going to be clouded by a faulty mental attitude? We need to place emphasis in the school system whereby the child will develop an attitude which will enable him to lead a full life, full of grace, and living to his utmost efficiency, and in making these children in school now more useful and happy, we will make them better parents so that the children of the next generation will also be more useful and happy.

Chairman Powell: I think that is a very timely discussion and it has brought out some things that I think we ought to spend a few minutes on.

How are you solving it? With the lack of psychologists and psychiatrists and social workers, it is a difficult thing. It

is hard in the average community to find a person who is well trained, and it brings up the question of how well trained a person should be to give this service. Does this whole 10 per cent need experts? That is, do they need the attention directly of a psychiatrist? Could you tell us how those things are being done?

Miss Ecob: I think in most cases it is not being done. I think most schools are neglecting it. But I think what will have to happen is to put more psychiatry in the medical schools. Very little emphasis is placed on it now. I think we will have to influence the boards of education in employing psychologists. As soon as the positions are open the people will take the necessary training to fit themselves for those positions. I think we will have to encourage the employment of psychiatric social workers. Those that are being trained should have practice in mental clinics, such as one of the New York schools of social work, where those specializing in child guidance get their work under Dr. Lowery.

Then I think for the present, perhaps for many years, the school nurses will probably have to get special instruction on this subject. We cannot set any time when it would be possible to employ expert units, and I think the school nurse will have to do the best she can. I think probably the psychiatric service in school districts will have to be supplied by the state for a long time. In New York State, Massachusetts, and Pennsylvania, they have traveling clinics which serve the school, and the states are gradually expanding those.

Of course, as I said, mental hygiene is just beginning, and our states are spending only one-tenth of one per cent on preventive work. So much is required to supply institutions, and the urgent work for the insane and feebleminded, that we have only just made a start in preventive work. Of course, that corresponds to what was done in the physical field. It is only recently that positive health has been an object. I think that the teacher training will be quite different from the way it is now. I think all teachers will have it emphasized to them that they must teach the individual child and not just be expected to get children through an examination.

Miss Chayer: We are just starting in that and I would like to give you the results of what we have been doing. Dr. Cartwell came to Des Moines and helped us to get started. He has a blank which is a personality study and shows the different things which the teacher might find out about the child. We asked every teacher in every grade to study the one child in her room who was a problem child, or if she did not have a problem child, to study one child anyway according to the blank. Then each principal in each building was asked to gather all of these blanks, and the principal and the teachers together were to pick out ten or fifteen of the problem children in that building. Then Dr. Cartwell held a very fine series of clinics for these children. We had a psychiatric examination, a psychological examination, and a very careful medical examination, and the school nurse made a very careful home contact on each one of these children. We came together and studied a great many of these cases during the six weeks' period. We had one conference after another and got the teachers very much interested in studying the personality of the children. We have no psychiatrist in our school system, but we have one psychiatrist and one psychologist in the health organization which is a private organization. We are going on with the study of the personality of the children, and we are trying to pick out such children as we find we cannot adjust, and asking the psychiatrist to help us with those children.

Dr. Davidman: We have stressed the importance of keeping our minds on positive health work, and yet in all of our discussions we are stressing pathological work instead. I do not want to minimize the importance of having a psychiatrist and a psychologist in the school. We should have them. But, after all, it becomes a question of teacher selection and training if we are going to provide in the classroom the constructive, positive type of discipline which will prevent the development of these mental states in which we are interested.

I have found as a result of my experience that the average case of pupil delinquency goes back to a third or a fourth grade teacher who has not provided in the classroom the conditions which will prevent the development of these mental states which

we are trying to correct. Now, why not, in our training schools, have higher standards of selection? Then, after that selection has been accomplished, higher standards of training, so that teachers do not necessarily drift into the third grade when they are deficient, when they are unable to apply the proper type of constructive discipline, and we cannot place them anywhere else. Such teachers are entirely lost in the sixth year and in the fifth year, and we are told that in the second and third year they have the easiest kind of work to do; therefore we put them right in there, when there, if anywhere, we need someone who is going to lay the foundation of right habits. As we study cases of delinquencies in the higher years we find that a beginning has been made on the road to delinquency in the second and third grades.

So it seems to me if we are going to lay the foundation for good mental hygiene we ought to give the right kind of training to teachers to make it possible for them to supply the positive conditions of constructive discipline, and then the rest will be a matter of superimposing on that the necessary correctional work which will at best take care of only 10 per cent, I think, of the cases which we have in the schools. Meanwhile we want to think of the 90 per cent for whom we have not done much thinking thus far.

"The subject of mental hygiene," said the Chairman, "leads quite naturally to a consideration of the early environment in which the child begins to learn, and that environment is largely conditioned by the child's parents. We will have, now, discussion of parent training as it can be accomplished through the schools."

Miss Lucille Nicol, District Superintendent of Schools, Jamaica, Long Island, New York:

I believe that we cannot put across a real health program unless there is some attempt made to train the parents. We talk about coöperation with the parents. We say it is necessary and that we must have it. But what are we doing so that the parents will understand what we mean about all these things? I believe that our program of health education must go further than the things of which we have spoken thus far. Next year I am hoping to get certain courses introduced for the parents in my

district, to have the parents visit the schools, to have conferences with them.

Beginning in September, I am going to start a health experiment, an attempt to train the parents in my two districts in the Borough of Queens. I believe that it is possible to simplify this whole thing so that the parents will understand what we are trying to do, not only along the line of physical well-being, that is, remedial measures, but also in this mental problem that we frequently have.

I want the parents to come into the schools and see the demonstrations. I think we could enlarge our program in this health education if we could get various universities to give courses to the parents (and I believe many of our parent associations would coöperate). The parents will not need necessarily to get college credit, but if we want really effective work among the children we ought to simplify these things so that the average parents of the child who comes from an inferior home can understand what we mean.

Chairman Powell: The necessity of bringing the teacher and the parent into it has been forcibly brought to us by every one of the speakers. Making use of the visiting teacher is one method; is there any other school system represented here that is using another method?

Dr. Leland: A very great percentage of our colored parents work; both parents work in over 51 per cent of the homes. There is no adult in the home, and it has been a real problem to get in touch with them.

I do two things: We get some of the parents to come between two and three on Tuesday afternoons, and I have a teacher take charge. Even some of the parents at work are allowed to get away for a little while in the afternoon. They go to work earlier and stay later. It is a good time for the parents doing housework.

Then I do another thing: I set aside Friday morning to inspect my health teaching. I go from classroom to classroom. It takes six weeks to see all of my teachers. I see about six or seven or eight in the morning, sometimes nine. I ask the parents association to have parents come with me. I find the very best

result in taking parents with me into the classroom to see what the teachers are doing.

Down in the second grade, for instance, they will be having lessons in fresh vegetables, such as celery. They will prepare the celery, eat it, and have the attitude toward celery that they would like to have more. Or they might be preparing oatmeal or some other cereal. When the parents actually see it and see the attitude of the teacher and the school and the child, I think it helps very much.

Then we have monthly meetings. We present to them our project for the next month and try to get them to coöperate. But that, as Miss Nicol has just said, is just a drop in the bucket. I have probably four thousand parents, and I perhaps reach five or eight hundred of them. What I need, and what I do not have, and what I would like to know how to get, is a visiting teacher who knows something about health, about mental health included in the whole field of health, and especially something about nutrition in the home.

I think with Dr. Davidman that we should have a good deal more training of the teacher. But I also feel strongly that something could be done in the way of getting parents together, getting a consciousness in the community that they, too, need training, and that it would help very much.

Dr. Wilkes: I would like to speak of parental education in the schools, and I am speaking now not from the standpoint of the school but as a father of three victims in school. I have heard a lot about obtaining coöperation of the parents in the school, and I think it is an excellent thing. I wonder if we in the schools put ourselves enough in the position of the parent when we invite him into the school, and consider what we do with him when we get him there.

My experience in more than one city has been disappointing. When I wanted to know how my sixteen-year-old boy was progressing in certain subjects in which I knew he was weak, I got too much generalization. There was the idea that we must coöperate more closely, and that I should see that he did what he was told in the school to do, and yet I wasn't told what he was told and he does not always tell me what he is told.

I think it would be a good thing sometimes if we would bring some parents into these meetings, and let them tell us how they feel. I believe we should organize work better in which we wish to obtain the coöperation of the parents. We should have it prepared and have it specific, and when he comes in we can sit down with him and select the things we prepared in advance, and say, "Mr. Jones, you would greatly help us in the education of your child if you would do these specific things," and put them in his hands and let him take them home. That is what I expect and what I would like to have as a parent when I come to the school.

Dr. Davidman: It is in the school where no record is kept that the person in charge is unable to give the information to this parent that he should be able to give, if he did have a record.

Miss Ecob: I would like to supplement what has been said here about the training of parents especially in regard to mental hygiene. The training of teachers in this respect is something that can be controlled. In time we shall be able to lay down standards for teaching.

With regard to the parents, of course it is hard to control them. A certain license is required of a teacher, but anyone can be a parent. Strangely enough, parents have never seemed to improve in their vocation. That is not true of any other group. Every other important occupation has improved, but each parent starts on the same level as her mother or grandmother. It is only in the last few years that any training has been considered for parents.

I should like to suggest a few of the things by which any person in health education could assist in parental education.

First, are there books in the library on the subject of child development and mental hygiene? If there are not, perhaps the parent-teacher organization will supply them. The next job to be done immediately is to make a list of them and see to it that the parents are familiar with them. Quite often it is helpful to make a brief summary of the books and a note on the authors, and send this around to all the organizations in the district at all interested. Even eight or ten books are

enough, and a suitable list can be secured from the National Committee for Mental Hygiene or any organization of that kind.

Secondly, encourage study groups for mothers. One of the greatest difficulties is the lack of leadership, but topics are being prepared to help these groups to hold meetings without leaders.

We have used in New York State Dr. Cunningham's intelligence test for parents. That makes a very interesting meeting, and can be secured free from the "Parents Magazine." It consists of a series of questions, many of which are mental hygiene questions, and it can be used as a basis of a program by making a special topic of any one of the questions on which the parents did poorly.

A third possibility is a series of mental hygiene lectures. Wherever such lectures have been held they have been a financial success. It is best to have the lectures in a series, for it is almost impossible to do anything with a single lecture.

Fourthly, the nursery school offers tremendous possibilities for parental education. These schools are gradually being introduced and should be backed by any health program.

Several extension courses from universities are offered. In this state, the home economics course at Cornell sends an extension course to a number of different cities. The course consists of lectures and demonstrations. In the course they want only parents of young children and those who intend to try to put into practice what the lecturer tells them.

In this state, also, in the State Department of Education we have a new division of child development and parental education. This division is training leaders, who are very, very much needed, and they are directing these small study groups all over the state. Probably one of our latest developments is parental education but I can imagine in ten years from now that it will have a tremendous place in our school curriculum.

Dr. S. J. Crumbine, General Executive, American Child Health Association, New York:

I am particularly interested in what Dr. Wilkes, Miss Ecob, and other speakers have said concerning parental education.

It occurs to me if we are to make further progress in having more time to devote to the 95 per cent of the so-called normal children instead of having all of our time and energies spent on the 5 or 10 per cent of the abnormal children, the problem cases, we must go further back than the elementary school. We must go back to the preschool child period, to the parents. Efforts that have been made to interest the parents show promise in some places.

When we consider that the mental attitudes, the social relationships, and the physical defects have been pretty well set by the time the child gets into school, we must acknowledge that this time is late to mold this impressionable child, particularly in his mental and social attitude. We must begin way back in the nursery school. I am perfectly sure of that, and the nursery school and the kindergarten to my mind are justifiable on that ground alone.

I am tremendously interested in the experimental work of Dr. Gesell at Yale, in which these preschool children are placed under intelligent direction. The parents come to observe, but are unobserved by the children, who are perfectly free to act as certain situations and relationships come up. Then the children's behavior is made the subject of a clinical talk with the parents.

We must get back to the parents and it is an exceedingly promising thing that the parents are interested. The parents are becoming organized all over the country, but as yet we have not made very intelligent use of that tremendous organization. Can we not do that? Therein lies the hope of elementary schools.

The Question of Standards

"We will turn for a moment to a discussion of activities from which an extremely important question arises," said Chairman Cunningham, again accepting leadership of the group. "This is the question of the use of standards, set standards, as a possible means of unifying the health aspect of the school curriculum. This discussion of activities leading to the question of standards will be presented by Miss Elma Rood. Following it, we will discuss at some

length how setting up standards influences the organization of our materials."

Miss Elma Rood, Associate Professor, Nursing Education, Peabody College, Nashville, Tennessee:

I wish you would keep in mind that our situation is largely rural. We do not have a wealth of supervisors or specialists and in a great part of our territory we have only the classroom teacher, the administrator, the parent, and the child.

Out of the many problems which confront workers in school health programs, there is one that is found very often, a solution for which comes only after long conscious effort on the part of many people. This problem is to coördinate the contributions to health education of every member of the school staff, and all the forces which contribute to the health of children, around some common objective expressed in terms of abounding health for every school child.

It might be well to restate a few underlying principles which, while not always accepted in practice, are practically universally accepted in theory.

First, the health of children is one of the objectives of all education, the responsibility for which is shared by every person in the school, in the home, and in the community, who has direct or indirect contact with the children.

Second, for the development of a health program in each classroom, every person from the superintendent down must contribute not only to the protection of the children from every influence which might hinder this development, but must also participate in assisting and encouraging the children to develop to their fullest, and help each child to build a rational basis for his behavior.

To determine how near the average school comes to realizing these ideals, notations have been made over a period of three years of reactions which come from teachers, supervisors, administrators, and special health workers who have been serving in a variety of educational fields. These represent about twenty-seven states, and are based upon actual experience in many types of school organizations and of communities.

A composite picture of these reactions tends to show that

in hundreds of communities such conditions prevail as would justify the statement that we need to find a way to coordinate around some common objective all the forces that have to do with children.

Many of our fathers and mothers are quite content to have the child able to go to school. They have no ideal further than that. If the children's attendance is fairly regular, and they look pretty well, and they are able to play after school in the afternoon, "They are all right, as far as I am concerned; I am satisfied with my boy." We have a long way to go to build an ideal in the minds of the parents that will make them want their children to be different.

The children are confused about the whole program and get no satisfaction out of achievement since no one seems to know when they have arrived. It is the rare child who is able to make the broad application that little Joe did when he said to the health worker in the school cafeteria, "Well, if you are so crazy about health, why don't you keep these windows cleaner?"

Such field reactions would present a very dismal picture did we not know that scattered around in this same territory are conscientious superintendents, earnest teachers, and hopeful parents who read, travel long distances to attend meetings, and reach out for assistance from every possible source, that children may realize their vision of normal childhood. Children, too, could be found in these communities, who love to do things that make them strong, and who know the goal toward which they are working.

Fortunately for the children, many communities realizing the confusing situation are struggling to find some basis for unity, some objective big enough to make people forget themselves and their specialties, with enough practical elements in it to arouse enthusiasm for a community-wide effort for the upbuilding of fine children.

The development of health standards for children has thus become one of the outstanding problems in child health. Whether we approve or disapprove, the movement is growing and spreading. Every successful attempt means new converts. Every failure means reorganization and a new trial. As evi-

dence of the working out of this problem, we find now in tangible form, the Virginia five-point child, the West Virginia standard child, the Tennessee state health badge, the Peabody health standard, the Kentucky blue ribbon children, the Missouri six-point child, the Kansas health standard, and many local standards in Indiana and Ohio, Michigan, Oklahoma and Alabama.

A study of these naturally discloses great variations, as all have been developed to meet local needs and according to the facilities of each individual community.

Selecting Standards

We find many questions being asked on such points as these: Shall we rate children on effort or shall we build an ideal? Shall we accept children who have such defects as can never be corrected if all other requirements are fulfilled? Shall we require parents to participate actively in habit training? Shall we base our standards of physical excellence on physicians' examinations, or shall we, for the time being, use to the greatest extent the observations of the teacher or the nurse? Shall we rate our children on health knowledge? Shall immunity treatments be included, and if so, to what extent? Shall we require a rating of mentality, and how shall this be determined? Shall children's attitudes and behavior be measured, and if so, how?

Looking at this situation frankly and accepting it as inevitable, in the beginning of a pioneer effort, we must recognize at the same time that these differences of opinion all represent earnest, conscious attempts by people in the field to focus interest and effort upon one thing: the development of fine children.

We recognize experimentation as the only real, scientific method of finding a solution to a problem and must accept with open mind the difficulties of the trial and error method in education. However, a surveyor of this new teritory might even now begin to recognize certain guideposts appearing above the horizon pointing the way for future enthusiasts in the development of the standards for children. It begins to seem

that the standards should be allowed to grow in response to the need of the particular field, and that as many people should participate in the growth as possible; because it touches intimately the homes of the children, the requirements should be stated simply and concretely enough for the public to understand.

Available facilities should be considered so carefully that it will be possible for a reasonable number of children to attain the standard. This should provide the necessary satisfaction that should always follow child achievement. It should constantly be in process of growth, and should eventually state definitely what points each child should realize: First, in the condition of his body; second, in what he does, his habits; third, in his attitudes, interest, or desires; and fourth, in his understanding of his experiences. Last, but not least, it should become the climax of the work of all contributors; in other words, it should become the ideal for the time being which guides the efforts of the entire community.

Already, workers who come from these fields in which definite standards have been established are reporting tangible results. These results are stated in different ways, sometimes from the broad viewpoint of the reactions of the community at large, and sometimes from that of the individual child; sometimes from the standpoint of the fathers and mothers, and sometimes from that of the school staff and administrators.

If we could summarize these various reactions to a unified aim in child health, we should find much the same relationship which exists between the building plan of a beautiful house, and the multitude of workers that it takes to produce it. We find that the plan in both cases guides construction, unifies contributions, evaluates the essentials, and measures results.

Seeming Values of the Standard

Concretely, results seem to show that it gives parents a definite aim toward which to work, this aim often extending downward, in many cases to the preschool child in the home. Because the standard stresses the positive only, it becomes a very desirable thing to attain. Therefore parents become anx-

ious to know how they can help their children, and corrections are secured without urging pressure or antagonism. It stimulates a wholesome comparison of children in groups which gradually grows into an ideal of what a standard child should be like. As this ideal grows in clearness, the parent's desire to have his child attain it increases each year. It develops a certain satisfaction in the achievement of the children, and in many homes has become a powerful influence in modifying the régime of the household.

For the teachers and the school administrators the standard motivates the work for the entire year, since all worthwhile health activities contribute to it in some way. It helps teachers individualize their health programs, since every child is an individual problem to be solved in many cases apart from the group. It helps teachers see the services of specialists as contributory to the common aim, and thus aids cooperation.

The standard enables the school staff to measure its results year after year by the number of children who reach the goal. Work in the interests of the standard reaches every child in the school, and even those who never attain the standard are benefited by it.

There should be a growing realization in the mind of the school administrator who is anxiously watching his budget of the tremendous pulling power which improvement in the health of the child has upon the support of parents. For special health workers it brings a definite objective on which they all may concentrate. Enthusiasm for the standard has often made an individual worker submerge his personal aims for a bigger objective. It makes special health workers welcome visitors since they are constantly in search of evidences of positive health rather than defects.

It brings definite pleasurable results with less expenditure of time, money, and effort, and with more fine spirit and enthusiasm. It makes health examinations, immunity treatment, and corrective work very desirable procedure because there is an end in view.

The Lay Mind and the Standard

To the community at large it measures results in terms that people can understand. It justifies the expenditure of public money for child health work since fine, healthy, rosy-cheeked children have an irresistable appeal. It develops community pride in the accomplishments of its children by building more clearly each year and in ever-increasing numbers an ideal of what fine childhood should be.

Last, it gives the child the satisfaction of achievement so necessary to help him go farther. It overcomes much unpleasant anticipation of the corrective work because of the clear picture in the end to be realized. It develops pride in looking well, in feeling fine, in weighing more, in being strong, which holds great possibilities as a protective influence in the child's life.

"What may results be," Benjamin Kidd says, "if we can build an ideal strongly enough, in the minds of enough people, that the emotion which accompanies the attainment of that ideal will have the power to control the behaviors of the people?"

Who knows but eventually when enough schools have successfully built an individual child health standard that results might be built into a national standard so strong in its appeal and so broad in its application that in every home and school there will be enthusiastic support of every measure encouraging the development of fine, healthy children from babyhood up! A few generations and Herbert Hoover's child's bill of rights may be realized. Who knows!

Chairman Cunningham: Miss Rood's presentation sets before us very definitely, I think, the question with regard to standards. The opinions of this group are invited.

Miss McCray: You know that we tried to get vaccination through legislation, and at that time it seemed necessary. But I feel we have gone so much farther forward when we are having our children immunized from diphtheria through education. We have to go more slowly, but community after community is gradually becoming educated to the fact that it is a thing

to be proud of that the parents are taking advantage of the opportunity of having their children immunized.

I just wonder, if we all fall into this idea that the standard child is going to be the solution of our problem, whether we will have to come back in a few years and retrace some of the steps that we have taken.

Miss Rood: I did not mean to infer in the development of this standard that we have any compulsory measure. We try to get the cooperation of the parents because we want it so much and because Johnny wants it so much and we know the home can't resist it.

The standard should be the result of the slow growth of the community. If you could have been with us when we did nothing but discuss the standard, week after week, I am sure you would realize it was a matter of slow growth, and also a matter of the contribution of every person in the community who was working with the children.

It might have to begin with a very simple project. If you are in a primitive locality with few facilities, certainly the standard ought to be on the level with all that community can provide as facilities for children. We shall get the parents largely by education, never by compulsory measures.

Miss Reba F. Harris, Staff Associate, Division of Health Education, American Child Health Association, New York:

It might be very useful to stimulate the interest in a small community, or a county, as the first step in educational measures, but to look forward to making a state-wide standard for all children, or to make a national standard for all children, seems to me a very dangerous thing. I can see, as I think most of us can see, that it is not based on sound educational practices, but is more of a device.

In the idea of child growth, we certainly know that children do not grow and develop alike; that is, we are looking for individual development and individual growth. And it seems to me by setting up a definite standard we are developing in many children a feeling of inferiority to those children who can come up to the standard so set. In that way we are tearing down the basic mental health which we are trying to build.

I should like to ask this question: "Is it our aim in health education to build all children according to certain standards, or is it our aim to give each child the opportunity to unfold and develop according to his individual needs and capacities, according to his environment, and social life?

Chairman Cunningham: Mrs. Avery, have you something?

Mrs. Ora Hart Avery, State Supervisor, Home Economics Education, State Board of Education, Richmond, Virginia:

The Virginia five-point child is the product and the prize package of the State Board of Health, and it is so very good that it has been taken over by the State Board of Education. They are sponsoring the five-point child to the limit because they think it is an excellent thing.

The idea grew out of the wish of the State Board of Health to further the great commonwealth of Virginia, and assist in any economic way that it could. We felt that we should present to the teacher who was going to try to teach this child plain, common-garden-variety facts of living and everything else, a child that met a minimum standard of health; a child able to see and hear; who had no defective tonsils; whose nutrition was not interfered with by poor teeth; whose weight—but I don't dare mention that because we do not mention the subcutaneous tissue or biceps! That standard made a wonderful opportunity for publicity, which of course is very bad, but it has succeeded wonderfully well because it set up a simple program which was within the reach of every common child in Virginia.

The five-point program was good hearing, good vision, good throats, good weight, and good teeth.

In order to secure that desirable starting point we found it necessary by law to require all teachers in the public schools to be able to give the child physical inspection. All teachers in the state of Virginia, before they can get a certificate, must be able to detect bad tonsils, bad teeth, defective hearing, and find weight for height according to the Wood-Baldwin chart.

It has been of great interest to watch the results. You will find in every schoolroom these five points. We have a five-point

child, a four-point child, and a three-point child. The children themselves are vitally interested in the five-point child.

Chairman Cunningham: We are very glad to hear that. Miss Ecob, have you something to say?

Miss Ecob: From the mental health viewpoint it is not best to pin the child's attention on specific health requirements. It is best to make that a part of his working equipment, but not an objective in life. The main objective of a person's life is not to obtain perfect health, but as a subsidiary matter to have perfect health so one can do a perfect job in the world.

With regard to the standards of mental hygiene of the elementary grades, I could list a few of the things we might expect of the child of elementary school age, and then I think that every one of these would be broken by both the parents and the teacher of the child, so they could hardly be set as standards.

I might make a few suggestions as to what the objectives should be. One would certainly be the ability to play and work with other children, both in the schoolroom and on the playground. A child should have a reasonable interest in school activities and not be so introverted that he is only interested in himself. A child of elementary school age should sleep well eight or ten hours every night, and should eat the amount and quality of food necessary to maintain body health.

A child should not make an undue demand for attention either at home or at school. Also, he should not have acquired the habit of demanding attention in an undesirable way, by being disagreeable and antisocial. A child should live in a harmonious relation at home.

In regard to the intelligence of the child you can make a little more definite statement. We should require of the child the best grade of work of which he is capable. If a child is capable of doing third grade work, that should be required, or the school is not doing its duty. The requirement must be a good quality of work at every level. For example, it is much better, from the mental health point of view, to require a child to do very good work of the third grade level, than poor work

of the fourth grade level. Whatever he does must be done well, even if on a fairly low level.

Miss Phelan: What in the final analysis is the result of our attempt to standardize children; our attempt to use children to educate the community and the parent; to help the child reach the standards that we have set for him? What is the result of our playing upon the human wish for security? What is the result, if we do not wish to do that, of our setting up extrinsic rewards for behavior, rewards that call for further and further satisfaction of the child's wish for approval?

It seems to me that when we attempt to develop in the child an interest in health, which is an unnatural interest during childhood, we are undoing the very thing that we set out to do. We are challenging at every step of that child's life his feeling of security when we constantly attempt to foster in him an interest in his own health. We build up wrong emotional habits, we tend to build up wrong mental habits, and it is conceded definitely, I think, that these wrong emotional and mental habits have a more undesirable influence on the physical health of the child than a bad physical state might have on the emotional and mental health of the child.

As regards the effort to standardize children, to utilize them for the education of the parent and to make use of rewards as a device to take the child's mind off the health interest, we are building up habits and responses that later on have to be broken down.

If we are to do these things we ought to think about the means which we use in the light of the criteria: Does beneficial behavior in the form of health activities emerge from these methods? Do the health materials integrate mental, emotional, social, and physical health values? Do the health activities and materials lead into further activities or materials and into wider interests and understandings?

There is a question in my mind as to such procedures as attempting to standardize children even though in the beginning it may seem that some beneficial behavior does result. I think we must consider all the behavior that results before making a decision.

Chairman Cunningham: As so much interest has been evinced by the question of standards, I have asked that the discussion in favor of and opposed to standards be summarized, so that we may have both sets of arguments clearly before us. Miss Bell will summarize the arguments in favor of using such standards, Miss Harris will summarize the points in opposition.

Miss Bell: I will enumerate the points made in favor of standards.

1. The health standard is a measure of achievement similar to the achievement tests which measure the habits, knowledge, skills, and attitudes in reading and writing and other school subjects.
2. The health standards measure growth or physical change in the body of the child which are not tested by other measures in the school.
3. The standard offers an important point of contact with parents so that their coöperation is easily gained. A proof of its value lies in their enthusiasm for the standard.
4. It helps parents to have a better understanding of children's health status or health needs because of the simplification of technical terms and because of the conference which may be held with each parent before giving the child the award. (In case of the Blue Ribbon the conference is a part of the plan.)
5. Through use of the standard the teachers become familiar with the health needs of their pupils and are coöperative.
6. Standards promote unification of methods by specialists and all who are concerned with the child through definite aims and by means of consultation in regard to individual children.
7. All children are reached by the standard, even those who are unable to qualify.
8. Children coöperate because they are interested in the concreteness of the standard.
9. All standards are in the experimental stage and cannot be judged for remote results. The standards have not been in use sufficiently long in any one school where they have had a sympathetic use to prove that the results violate mental health.
10. The ribbon, star and button are recognitions of achievement just as the insignia on the Girl Scout signifies some special ability or success.
11. It provides for satisfaction through approval. Pride in achievement is not always an objectionable quality.
12. The standards are proving their value because many state

departments of health and education are adopting the standards, and we may look toward the adoption of a national standard.

Miss Harris: Enumerating the points in opposition to the standard:

1. These standards may be effective in small communities if closely supervised, as an initial step to gain the interest and coöperation of parents, teachers, and children, but would be too rigid if developed on a state-wide and nation-wide scale where adequate supervision is not always available.
2. A device of this kind had its place in the early development of child health as a means of public health propaganda which was valuable propaganda in the early stages, but does not fit into the present stage of health education in the public schools.
3. These standards do not provide for individual differences in growth and development. They appear to be the means of saying that all children grow alike.
4. These standards assume that they are correct measures of growth and physical development.
5. We should develop this or any device very slowly as other concomitant educational values which are more far-reaching may be violated.
6. These standards may develop an overconfidence in the parent in regard to the physical development of the child.
7. These standards may violate emotional health behavior since conduct is a complex aspect of the individual.
8. All materials and devices used in health education should be measured in the light of their influence upon physical behavior.
9. These standards are not educationally sound because they challenge one of the fundamental wishes, which is a wish for security, both mental and physical, and to challenge this wish is bad mental health.
10. It is not the aim of education to build all children according to a set standard. Is it not the aim that we shall give them an opportunity to unfold their capacities?
11. These standards are not sound in the last analysis, in that the purpose is to use the child as a club for the parent.
12. Their effect would tend to widen the breach between generation of parent and child. They challenge the parent's wish for security of the child without offering indisputable means of regaining this security.
13. They train the child in habits and attitudes which later may

have to be broken down. These standards appeal to motives on a low level of self-interest. It is an appeal for adults' approval rather than that satisfactory behavior attitudes be developed. Playing for approval seems to be unsound. The interest involved is not inherent in activity, hence there must be a greater effort used by the teacher to get this interest.

14. These standards are artificial support. What do they support? What is left that the child did not have? And what does it lead to?

Chairman Cunningham: Miss Langdon will summarize the Elementary Committee's point of view with regard to this particular question.

Miss Langdon: It seemed to the Elementary Committee that the topic of standards was one of the most controversial discussed in the Elementary School Section. When one begins to deal with motives, one is dealing with factors actuating human behavior which cannot be disposed of lightly. Since the motives appealed to in this plan are as described, the committee earnestly recommends:

That any standardization of children be given very careful, thoughtful and deliberate consideration before it be generally adopted.

The committee recommends and very earnestly urges that the general conference go on record as recognizing this as a two-sided question, and as recommending that any general use of a standard for children be thoughtfully considered and very cautiously used.

"I think," said Chairman Cunningham, "we will now discuss some of the problems of organization." The Chairman suggested further trends the discussion might take.

Chairman Cunningham: The Secondary Section has asked us to consider just what is to be worked out in the way of minimum essentials in health teaching. Suppose we discuss the question as to whether or not we have progressed to a point at which we might be able to consider minimum essentials at this time. Can we recommend to the Secondary Section that boys and girls by the time they leave the sixth grade should have a certain minimum body of material?

Dr. Davidman: That is a task for a committee working weeks, and possibly months, to study very seriously, making

various contributions, and then by selection reducing it to the absolute minimum. It is hardly possible in a short meeting of this sort to do this.

Miss Nina B. Lamkin, Consultant, Health Education, Bellevue-Yorkville Health Demonstration, New York:

Could we discuss some phases of the work under general headings? For instance: How many food facts shall we teach in the elementary school? Or, shall we teach food facts many at a time or few at a time? This is one of the things that puzzles many of us.

Dr. Gudakunst: It is absolutely essential for the secondary school to have some knowledge of what has been taught or given to the child previously. Is this secondary school to assume that the child enters knowing nothing of health education, or is it to assume that he knows everything about health education?

Chairman Cunningham: Is there in the secondary group, an impression or a general tendency to think that the children as they come up into the secondary schools are very much bored because of having too much, or is that just a question raised as one of the many problems that we may have to meet?

Dr. Gudakunst: There are children who are tremendously bored by knowing not too much for their good, but too much for the program which is set up. What we in the Secondary School Section want to know is not what you teach, but what can we rationally expect of a child coming to us? Where can we reasonably assume that we are going to start?

Miss Harris: Are not these tests which the American Child Health Association is developing, answering, or will they not help us to answer, this particular question? For instance, if we can give these tests in the sixth and seventh grades, then the high school can take the findings from those tests and know what the child knows, where he is, and can build from that, just as we do in other educational subjects.

Dr. Gudakunst: No, I do not think we can do that. You do not do it in other educational fields. You do not take a child

in the secondary school and say, "The first thing we shall do is to find out how much mathematics you happen to have picked up." We say that we assume the average individual entering a secondary school has acquired a minimum amount of training and ability in mathematics. Can we, by any means, do that same thing in the health education field?

Miss Short: Are we not, though, in quite a different developmental stage in relation to health instruction and the teaching of mathematics? We have certain standards with regard to how much mathematics should be taught in the elementary school, but we are in the process of setting up standards in health instruction as to what knowledge, habits, and attitudes we will attempt to give the child during his period in the elementary school. We have had certain of those tentative setups, such as in Dr. Wood's and Dr. Lerrigo's book on health behavior, but we have not really accepted them generally, have we? That is, they have not received perhaps general acceptance or approval by a group such as this as being the standards as worked out for different age levels.

Dr. H. H. Mitchell, Medical Director, School Health Study, American Child Health Association, New York:

The health education tests of the American Child Health Association are now in preliminary form, and include habits, knowledge, and attitudes. They have not yet been cross-sectioned to take up any one subject. For instance, there is a great amount of knowledge and facts about dental health and about food habits in those tests, but in order to find out whether a child has made a certain achievement in dental health education or in nutrition or in food facts, they will have to be cross-sectioned along these special lines. This is a part of the project which has been outlined as supplementary research.

Chairman Cunningham: Dr. Mitchell, in the standardization of these tests, have they been given so widely that when that material is put together we shall have something of an answer as to what the child in the sixth grade throughout the country does know?

Dr. Mitchell: Yes. That is from seventy different cities in a wide geographical distribution.

Chairman Cunningham: Would not that be something which we could give, or is it not one reply which we could make, to the secondary group then,—that this material will be forthcoming in time?

Dr. Mitchell: That is for the fifth and sixth grades only.

Chairman Cunningham: Are there any other suggestions on this question?

Dr. Davidman: The fact that we teach American history below the secondary schools does not prevent us from teaching it in the secondary schools, and making use of the critical faculties of the children who have developed those critical faculties. Likewise, in the realm of health knowledge, it does not mean that if the 6B grades, let us say, have taught certain facts of knowledge with reference to foods and with reference to other elements of the health program, that we need not therefore teach them over again from a higher point of view.

But there is a bigger point of view involved, too. When it is a question of health instruction, the emphasis is on the development of health habits, and in order to continue to develop these health habits, the secondary schools certainly should not cease to make continuous efforts in the direction of further developing these habits that the elementary school has tried to develop.

The program in the secondary school should start from the point of view of the pupils having been trained up to a certain point, and possibly not having been trained up to that point, and there should be an independent program on a higher plane, imparting the knowledge necessary, and also a higher plane of additional motivation, as habits should be developed in the secondary school as well as in the elementary.

Chairman Cunningham: You have the suggestion before you that the program of the secondary school should continue more or less without regard to the program in the elementary school. Am I correct?

Dr. Davidman: Yes.

Chairman Cunningham: May we have a little discussion, and in a short time come to some conclusion as to the nature of the recommendation we should like to make? Do we as a group believe that the two problems are fairly independent, and that the secondary school should proceed without attempting to find a common body of knowledge and habits in the group? Or is there a tendency to believe that we should do everything we can to try to work out a general, growing program, so that the health program would be cumulative, like the record, starting from the preschool period? What is your impression of the two aspects of the problem?

Mrs. Bliss: In my mind there is no question that this procedure should be a growing one from the first year. I think the health facts should be a growth, because from the youngest child on up there is a steady growth, and when children come to the secondary schools they keep right on growing. I think, also, that there should be a recommendation to the secondary schools that a committee or some organization should assemble suitable minimum essentials perhaps through investigation as to the amount of health education the child should have acquired by the time he is at the end of the sixth grade.

Chairman Cunningham: Is there anything more?

Dr. J. Mace Andress, Editor, Health and the School, "Hygeia," Newtonville, Massachusetts:

It seems to me that in considering a health program from the point of view of health habits, we have practically the same thing to teach from the kindergarten up to the twelfth grade of high school. Habits are about the same, with some variation, —drinking milk, getting plenty of sleep and fresh air. The problem of instruction, it seems to me, is in a large measure the problem of how to attack these things in different ways in different grades, making a different approach. We need to be a little careful about not riding this idea of health habits. We can get children sick of these things.

This spring I was invited to speak at the assembly of a junior high school where two of my children were to be present. They were very much interested to know what I was going to talk about, and they said, "Whatever you talk about, don't

talk about health." In other words, I assumed that they had heard too much about health habits.

Now, it is a mistake, I believe, to think that anything in the way of health habits is ever taught completely. One very peculiar situation arises, particularly in the senior high school: habits that you think you have taught tend to break down.

I have two children in the junior high school, and two in the senior high school, and I am learning a lot of things about adolescence that I didn't know before. I find, for example, that it is much more difficult for them to get enough sleep. Formerly we had a fixed time when the children went to bed and got up. Now they are under the pressure that exists in high school. You know it is very great and has been increasing for a long period of time and there is no indication that there is going to be a let-up. Something must happen before long, I think, because we are subjecting the young children to tremendous pressure. When I say, "Now it is time to go to bed," the reply, difficult for me to answer, is, "The teacher expects certain things of us tomorrow, and we must have this lesson."

A great many of these health habits which in some cases have been very well learned down through the grades, disintegrate in the high school, and we are face to face with the situation. What are we going to do about it? In some measure, I think, that is an administrative problem. A great many of the high schools are not well administered from the point of view of physical and especially of mental health.

One thing, of course, that we can do is to get high school students to make out their program, and to have those looked over perhaps by teachers to see if they are planning their work in the right way. We can notice the tendency on the part of the pupils to fail in their subjects, in making the adjustments that come up, and when we notice that, we can have an advisor come in.

It is really a very crucial problem, and the high school students are neglecting their health, shown from the fact that tuberculosis that has been decreasing at all other ages, has not decreased in the high school.

I do feel that the high school is not being managed as if

boys and girls were really human beings with needs demanding sleep, fresh air, a little sense of leisure in this world, and all those things that go to make up an integrated and happy personality.

Chairman Cunningham: We are going to try to formulate a recommendation for special study answering the question regarding minimum essentials that comes from the secondary group. We have three or four leads: One is that we should like to have an investigation. Probably we can't immediately solve anything as to whether or not continuity in the program is a desirable thing, gradually increasing the body of health facts, gradually making the children more aware of these health facts, perhaps building upon a body of habits that have been underway without much analysis; or whether, on the other hand, the same amount of factual teaching should be evident in the elementary and again in the high school. A third question raised is that perhaps after all the big question involves the administrative organization of the high school, that the elementary group may send to the secondary group a question as to whether or not they need not attack this problem of what their curriculum should be from the standpoint of changes in the experiences of the children.

Will somebody attempt to bring these questions together in the form of a recommendation for investigation which we shall turn over to the American Child Health Association, as recommendations which come out of this meeting?

Miss Short: Could we decide on the points that we want in the recommendation and then appoint a committee to formulate the recommendation?

Chairman Cunningham: That is a very good suggestion; a committee from this group.

Miss Short: It seems to me there were two things which Dr. Andress brought out: One, the need for the cumulative instruction throughout the grades, and the other the need of the secondary high schools to carefully consider the arrangement of their school day.

Chairman Cunningham: Of course the question put to us is, What shall we say our children are taking to the high school?

Dr. Davidman: May I add this to the development of that thought? The problem is that we recommend means of intensifying the habit formation as the children get older, and rather than have the secondary schools expect certain habits that we have developed to remain permanently through life, we should recommend to them that they do not allow the habits that we have formed to disintegrate, but rather that they intensify their program of further forming the habits we train in them.

I didn't mean it to be understood that we didn't want to develop a course of study. We have to have that, of course. But that doesn't mean that when the child leaves the 6B that the health authorities of the secondary schools should assume there is nothing else to do along the lines of habits we have developed. On the contrary, they should do much more than we have, to intensify what we have done. In that way only shall we avoid having these habits disintegrate.

Chairman Cunningham: This links with Miss Short's suggestion. I should like Miss Short and Miss Harris and Dr. Powell, if they will, to summarize this particular question.

The question of administration, as Dr. Andress has brought it to us, is certainly a very large part of the problem, but we as the Elementary Section find it rather difficult to make recommendations as to what should be done. We should at least give the Secondary Section an answer to the other part of the program.

It seems to me that before we can do very much with grade placement, with research as to which facts should be taught first, which habits should be inaugurated earliest, we need to have some group thinking on just what should finally be taught, without any regard to where it is that we want to take it, and then after we have gotten that body of material and of activities which we think to be desirable, it seems to me we could begin with the problem of grade placement.

A statement of the summary of recommendations from the Elementary to the Secondary Section transmitted by Dr. Cunningham to the General Session follows:

It is the consensus of opinion in the Elementary Section that minimum standards of achievement should be set up in health habits, attitudes, and knowledge at the end of the elementary school level.

It is the further opinion of the group that since this is a problem of research and discussion, at this time it is recommended that there be research and investigation to determine the essential content of the elementary school curriculum based on the child's needs, including the preschool period. Until adequate research is made it is recommended that the secondary school should not assume that habits and attitudes which may have been included in the elementary grades are necessarily established.

"At this point," continued the Chairman, "I think we must turn to the discussion of different problems of organization."

Chairman Cunningham: Miss Hoefer in discussing her very well worked out plan from the standpoint of interest only, was at a distinct disadvantage because she was not able at that time to tell us about general organization.

Miss Hoefer: The children included in this study were selected from the third grade of twelve elementary schools. Originally there were 453 children selected but throughout the entire experimnt covering a period of four years only 41 children were eliminated through removal from the city, death, or incomplete records due to illness, etc. The plan of organization included complete annual anthropometrical, educational, medical, and psychological examinations. But the particular phase of the program which would probably be of special interest to this group is the organization of a working plan in health education, and it is of this that I shall speak more fully.

A committee was formed, consisting of the general supervisor of the elementary schools, of the supervisor of home economics, of nurses, and of physical training. Each member was asked to submit suggestions as to the type of health material which should be selected from the particular field which he or she represented. In addition to these suggestions, the supervisors of home economics and of the nurses submitted complete

plans for specific lessons. Five libraries were canvassed for material which would serve as aids in teaching health. This included plays, games, devices, historical facts, etc. Books on educational methods were scanned for new procedures applicable to health instruction. On the basis of this information which had been classified on approximately three thousand cards, a tentative course of study was planned and sent to the teachers in mimeographed form.

The home economics teachers and nurses alternated in the teaching of one lesson weekly. Special athletic tests were given in the physical training department. The object of these supervisors and special teachers going into the classroom was to present definite and fundamental facts from their specialized fields, and at the close of these periods of teaching they left with the classroom teacher devices and other suggestions for continuing the subject. The health instruction outside of the above named hours was directed by the general supervisor, at which time consideration was given to the method of presentation. Wherever possible, attention was centered upon the mental characteristics of children at these ages, in so far as these have been enumerated in research work of other investigations.

To decrease the tendency to use the same material in more than one grade, specific poems and stories were submitted to the teachers and it was left to their judgment to select those most applicable to the needs of the children of their respective groups.

One of the objectives of the course of study was to avoid the "pigeon-holing" of children. It is superfluous to add that ideals of good health vary for different children whose activities in later life will be dissimilar, but in the physical examination, in the instruction in the classroom, in conferences with the children and their parents, a very definite effort was made to consider every child as an individual and to be treated as such, —an individual who may grow very differently from his neighbor although there may be certain fundamental characteristics applicable to the entire group as a whole.

The outcome of the experiment has been one of great interest. The group having had this intensive health instruction has made a greater degree of improvement than children in the

control group and although the results showing the superiority of one group over the other are not statistically reliable, the consistency of greater acceleration in growth in the group having intensive health instruction, in practically all of the traits studied, indicates that in so far as the tools of measurement have been developed the results favor the experimental group.

Chairman Cunningham: Are there any questions that you would like to ask?

Miss Harris: I think this is a splendid plan of working out what each individual in the health program is expected to do. I have tried it in my own experience in a county-wide program, and found it unusually helpful.

Miss Harriet Stone, Supervisor, Nutrition, Public Schools, Newark, New Jersey:

Did the home economics teacher reach all of the children, or only the girls?

Miss Hoefer: She went directly into the classroom and reached the boys as well as the girls. We made an educational program of it, so that the next year the teacher had the benefit of this material, having it in her own hand in mimeographed form, the lessons being divided.

Dr. Davidman: A previous statement that was made interested me. It had reference to the possible pathological effect on children of calling undue attention to matters relating to their health. Answering a generalization of that sort is difficult; did you find in working this thing out practically, whether the teacher or the nurse did it, that undesirable thinking of that sort crept in?

Miss Hoefer: Only in one case, to my knowledge. I do think that we had a wholesome attitude toward health in Joliet. We sometimes had the difficulty that the parents tried to do too much, taking the examination a little too much to heart, but the result has been that the children have had more regular medical examinations.

Miss Short: It seems to me that organization is related closely to health results with the child.

I have been much interested just recently in getting the opinion of some nurses over the country in relation to school nursing problems,—the administration of school nursing, and what the school nurse does. It is very interesting the way in which the returns are coming in, because we purposely picked out small groups, securing geographic representation and representation of different types of administration. The work is administered by the Board of Health, by the Board of Education and in some cases by a joint board. What to me is striking is that there is reiteration of that principle that we have had placed before us by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association and by the American Child Health Association as well,—that whoever is concerned with the health of the school child should be considered as an integral part of the school administration, and that organization of personnel within the school is possible so that the people who are concerned with health matters may be able to make their fullest contribution to the work. In other words, the person who draws her salary from an outside agency will not be considered an outside person in the school but will be considered a member of that school staff and will have the opportunity to work as a member of that staff, making the best contribution that she can to the health of the child.

Chairman Cunningham: I think that is an excellent point to bring before us: that the health worker is to be responsible not only for the little narrow cross section of the program which happens to be the particular duty of the nurse or whoever is the health worker in the school, but that this health worker should be a member of the entire school team. We have been saying throughout the conference that those who are working upon problems of health need the coöperation of all other school specialists. Now we find ourselves at the close of this session, viewing the problem from the other aspect, that the health worker not only should like to have contributions from the other specialists, but the health worker needs also

to have an opportunity to become a member of this administering group.

Training Elementary School Teachers-in-Service Through Supervision

"We have asked Dr. Leland to lead the discussion of the training of elementary school teachers-in-service through supervision," said Chairman Cunningham.

Dr. Leland: Perhaps I can best indicate our problems and how we met some of of our problems by giving a brief history of our work.

In the fall of 1924, I went to a school in New York City of 2300 children with a staff of about 60. My problem was the very real health problem of the colored child, as about two-thirds of the pupils are colored.

Through the coöperation of New York University, a graduate student for a doctor's degree in health education was appointed to our school to carry on experiments which I felt would help in teacher training work. This teacher carried on an excellent experiment. She did all the teaching herself in assembly. In every way she had a handicapped group. Her report is published under the auspices of New York University, but it did not help me in teacher training.

My next move was to try to secure the help of Dr. Wood and Dr. Rose of Columbia University. Through Dr. Wood, Miss Phelan gave us much help in information, but some of the teachers were not yet ready for these facts. Through Dr. Rose and her students we tried nutrition lessons in three of our classrooms. The second term we asked teachers to observe, and have had several teachers observing every lesson. Then Dr. Rose through her students was able to give demonstrations in nutrition throughout the year. Every classroom teacher has something of nutrition and they have already worked out units for a course of study. We realized we must do a great deal more. I went to the American Child Health Association, and this year Miss Bell has been training principals and teachers, by going in and helping teachers to think in terms of health.

Miss Bell had a weekly conference with the staff, partly letting the teachers demonstrate and partly analyzing the situation for them. A Health Committee was formed. So before the term was over our teachers were making their own plans, and finding their objectives in terms of needs of their children. They have been watching the habits of their children. They have been planning lessons to build the kind of attitudes that might eventually result in the right habits.

Along with this, since 1925, we have been working to get the coöperation of the parents.

The big thing that has come out of the work is that Miss Bell has made our teachers independent. They are carrying on experiments on their own initiative. The teachers now feel the need of greater knowledge, and have been hungry for books. As a result, the staff itself has asked for a course, and we hope to have a course in the building where the teachers will have half theory and half practical work.

Miss Effie F. Knowlton, Director, Health Education, City Schools, Binghamton, New York:

The subject of training of teachers through supervision is one in which I am keenly interested.

All who are interested in health teaching know that the average teacher in service began her teaching career with little preparation for one of the biggest parts of her work, health education. Hundreds of such teachers have, in service, acquired knowledge and method which have brought the standard of their health teaching up to that attained by them in other subjects. Many have found so great an interest, enthusiasm, and satisfaction in health as an aim of general education that they have been led to specialize in health teaching.

During the last or three years there has certainly been a remarkable improvement in the quality of the product of the teacher training institutions with regard to the young teacher's realization of the health objective as a fundamental aim of education. It would seem quite impossible for an intelligent young woman to complete her three years' course in some of our more progressive normal schools without having acquired

some health ideals, and at least a limited appreciation of her functions as a teacher of the whole child.

Even though these young teachers have found, in certain normal school courses, emphasis on the health aim in education, their practice teaching must necessarily have been limited. They need counsel and guidance in applying their theories to the school situation and to the problem of the individual child. Release from the supervision of the teacher training institution may leave the average young teacher floundering, unless she is given in her school situation counsel concerning the activities, the materials, and the methods which are best adapted to the needs of the children in her charge.

Special Supervision Desirable

This counsel or supervision may be, and quite frequently is, given by the school principal or by a health counselor within the school. Alert, interested principals, with adequate specialized health knowledge, or health counselors and classroom teachers of the same type, are doing most effective health teaching in individual schools. However, since every child should have his opportunity for participation in those activities which will give him his best opportunity for developing health ideals, special supervision of health education is not only desirable but necessary, especially in those schools lacking school administration of vision and force.

For the sake of some uniformity of standards for comparison of the results of varying activities and methods, and for certainty that all children are given at least a nearly equal opportunity, special supervision in all schools of a system seems to me the best solution of the problem.

This special supervision need not and must not obstruct nor retard the initiative of individual teachers nor individual schools, providing that initiative is being wisely employed along lines which are scientifically, educationally, and socially sound. Rather it should and, if of the right sort, it does encourage originality of thought and procedure; it gives the finest opportunity for recognition of effective work on the part of individual teachers and individual schools; it affords oppor-

tunity for the pooling of ideas and effort for the common good of the whole system.

A Shared Responsibility

This system places major responsibility for courses of study, activities, methods, materials, and equipment upon the supervisor or her administrative director. It places upon the principal of the school the responsibility for the functioning of the health program in his school.

All teachers must be informed concerning all the health activities of the school health program. I believe that it is very, very essential that every teacher should see the field as a whole. We try our best to see that a new teacher coming into the system knows what our health program stands for. We like to have her know what is going on in other schools. We like to have her know about the special work that is done for subnormal children and for the mental and physical cripples, because she appreciates then what may be done for the child who needs something other than the regular classroom teaching. By seeing what the school health service may offer to the children in her charge, she learns how necessary it is for her to coöperate with that service. Our teachers not only coöperate willingly but graciously and anxiously, because they know what it means in the lives of the children with whom they work.

One illustration shows how we have tried to train teachers along certain lines. About eight years ago, those in administration of the school health program in Binghamton, New York, recognized good nutrition as a fundamental of child health. In 1921, to ask Johnny what he had for breakfast and offer advice on the family dietary was not generally recognized as a function of the school. Plans for the introduction of a school program of nutrition needed to be laid carefully before the supervisor of nutrition came onto the scene.

Presenting the Problem

First, the minds of teachers were prepared. The superintendent of schools spoke of the great problem of malnutrition

and its relation to child health, in which our teachers were already interested. This was followed by group conferences in which the director of the school health program presented the first vitalized materials available on the diet of the school child. These materials distributed among the schools were used by many principals and teachers as aids in teaching the fundamentals of nutrition.

Then our State Supervisor of Nutrition, Miss McCormick, gave very inspirational and instructive addresses upon the special subject of nutrition. Every member of the school faculty heard those lectures. So the great majority of our teachers had become conscious of the value of nutrition teaching and welcomed a supervisor of nutrition to help in making their teaching effective. Principals, teachers, children, and in individual problem cases, school nurses carried the message into the home and the coöperation of parents was won. This, of course, was a gradual process.

Our present supervisor has a regular schedule of visits because, ours being an organized program, we have a definite period for health teaching. During that period of visits she may do demonstration teaching for the teacher, she may have individual conferences with the teacher in regard to her problem, or she will have group conferences to present activities and courses of study and to suggest methods.

Utilizing Suggestions of Teachers

We have a definite course of study in nutrition and our teachers have had a big part in working out that course of study. First outlined by the state supervisor, we have done the experimental teaching necessary to develop it in our city under the direction of our supervisors. When the teachers had taught through a term's work they came together to give their criticisms and their suggestions. Their suggestions have been incorporated into that program which is now being used in our state.

It is interesting that in the junior high school, where we have the cafeteria and where the children are first learning to choose their own meals, special instruction is given on the

use of the cafeteria. This correlates with the nutrition work, and all our teachers coöperate splendidly in helping the children to choose suitable meals and in helping with the social life in the cafeteria.

The supervisor plans for correlations with all of the departments and other subjects, English, social studies, and so forth. Through exhibits, our teachers are enabled to see what the children of other teachers are doing. It has been a pleasure, through this process of training teachers-in-service, to see how some teachers do rise above the level of the average, and to give those teachers some recognition for their achievement by making them special health teachers, or principals, or teachers in special class groups.

Of course we provide materials, suggestions for materials, and so forth. We have tried to help them know where they can get really sound information in nutrition. They have not only a normal course with their own supervisor which helps them to acquire the best methods of teaching in their own classrooms, but also they are given advice in regard to college residential or extension courses which will better fit them for their special work.

Whatever I have said in regard to nutrition applies to other phases of our work. Our classroom teachers do physical education teaching under supervision also.

Chairman Cunningham: The mention of the teachers being eager to get all the material that they can to help them to teach something more than the traditional school subjects is certainly something which we ought to think about. The way in which teachers in teachers colleges have thrown themselves into the courses that have to do with the health and care of children is certainly evidence of the fact that the classroom teacher is most eagerly welcoming this broadening of her responsibilities.

Miss Ethel A. Grosscup: I believe one of the most bewildering things at present to the teacher and of course through the teacher to the pupil, is the amount of free material we have. I think we find over and over again that the teacher, in-

stead of sending to the State Department of Education where she should send for correct guidance in what to teach, is sending to all sorts of concerns for free material. Now I am not for one minute underrating what we get from certain organizations as a form of advertising. I do not mean to discredit it. But I do think that the general teacher who uses a great deal of it needs guidance from some source as to how to use the posters and the free material.

Chairman Cunningham: Miss Lamkin, may we hear from you?

Miss Lamkin: I am to speak about the use of materials in a supervised program of health education as aids in training teachers-in-service in a certain area in New York City.

Our area is the much overcrowded Bellevue-Yorkville section of the metropolitan district. Two years ago, when we began to plan for the health education program, the school day seemed so full that there was no time to add another subject to the curriculum. Twenty minutes had been allotted to health teaching, but this time was usually used for some other subject. Gradually the teachers realized that health was not a separate subject but an influence throughout the school day, and that in the activities of a class period, in the improvement of the hygiene of the schoolroom and of the school building, were many opportunities to teach habits, attitudes, and skills. Posters and slogans appeared on the walls, and health books became popular ways of keeping the first records. There was no opportunity for grade conferences, or for any teacher training in grade groups.

How, then, could we guide the teacher in her choice and use of materials, as well as in her teaching of health education? This was done in two ways: through short individual conferences, in which we would discover a need and place at her elbow certain suggestive material to aid in solving a problem or in developing a project, and through tentative bulletins suggesting methods, activities, materials, and references which might be adapted to the needs and activities of the groups.

Selection of Materials

In our conferences with the teacher we talked about the materials which would meet a specific need. Then we talked about the possibility that materials might evolve from the interest of the children, and further, that situations might be planned so that the children would not only become interested in the habits and skills which from a survey seemed most needed, but would have opportunities to help create materials or find and assemble them for use in acquiring knowledge of healthful living and in the practice of habits and skills. We suggested that the teacher apply these simple tests to any material which was used:

Did the children help to create it or find and assemble it?
Was it constructive material?
Did it make the children think?
Did it convey a truth?

Gradually the teachers realized that materials of a positive and constructive nature were the best ones to use, that there were approved ways of developing these materials, and that they should develop out of the child's interests and should fit particular needs.

The teachers also realized that the children must have opportunities to discover, to create, to judge materials, and to take active part in the use of them, as far as possible in real situations. While there were drives at certain times on some phase of the work, as a "dental campaign," the plan was to interest the schools in a practical working program which as soon as possible might become a natural part of the school work. We refrained from using the phrase "to be healthy" as a reason for practicing a habit, but rather we talked of "growing" in the lower grades, and "right living" and "natural activities" in the upper grades.

These guiding principles influenced the development of materials which grew out of activities, as well as the choice of materials from the outside,—for example, from commercial organizations or agencies interested in health education. Such materials approved as scientific and worthwhile stimulate in-

terest in the subject being studied and enrich the backgrounds of the children. Whether it is a picture showing a good habit, or a graph recording growth and progress, or a model of a study corner properly lighted, the materials reflect an understanding on the part of the teacher of some of the guiding principles which underlie successful health teaching. If we can help the teacher to see that materials grow naturally out of a project, and that a project represents purposeful activity, then in the choice and use of materials, it seems quite evident that we can very definitely help in the training of teachers-in-service.

Chairman Cunningham: Miss Lamkin has raised a question to discuss in obtaining teacher coöperation, and that is, the significance of having materials which will help the teacher as well as the children to see their progress. It is unquestionably necessary that the teacher have some means of knowing when she is successful, and these materials of course, serve as incentives as well as goals.

May we hear now from Miss Chayer?

Miss Chayer: In the first place, it might be well to tell you something about our administrative set-up which will help you to understand our position. We are directly under the Board of Health of the Public Schools. We have a director of health and he has charge of four bureaus—the bureaus of medical inspection, of nurses, of dentists, and of physical education. The heads of these four bureaus and the director of health are all members of the supervisory department of the Des Moines public school system. We are on the same basis as all other supervisory staffs.

This set-up so far is more or less what you might expect to find in some places, but we deviate from the normal a little in that the supervisor of nurses is also the director of health education. We have a school which is departmentalized from the third grade, and therefore we have at the present time, and always have had, a special period for the teaching of health education. I am not saying that this is ideal; I am just telling you that that is what we are doing at the present time. In fact, I always felt it was not ideal, but I had to work with

what we had, with the presumption, I think, that we were going to make a change. But up to the present time, because of the departmentalized program, we have been giving thirty minutes twice a week to classroom teaching of hygiene.

This teaching has been done in the grade school by physical education teachers entirely, and then in the junior and senior high schools by the physical education teachers and nurses with a great deal of the work, of course, done in the upper grades with other teachers in the department, such as the home economics teacher, and the general science teacher.

Suggestions for Supervisors

I think the first thing that a supervisor of health education has to do is to be sure that every member of her teaching staff has the right philosophy of education. I say the right philosophy: At least what we think is the right philosophy. The philosophy of education has changed so many times that perhaps we do not know. At least we feel that every teacher ought to recognize that the modern educational system is teaching the whole child better living. The next thing is that every teacher shall understand the philosophy of health education as one big part of general education and not a little circle all by itself. It is a part of the general educational system.

I do not like the division of health service and health education. It seems to me that health service is only again a part of health education. If health service is not done in such a way that it is health education, then it should not be done at all. That is an arbitrary decision, but that is the way I feel about it.

So here we have the big general field of education, and within that, health education, and within health education, health service. That is my definition of terms. When we have gone that far with the teachers, then I think the first thing to do in helping the teachers in a health education program is to have them know something about what we are trying to do in our health service. That is something very attainable.

We want them to know, perhaps, that they are of very great help, we will say, in the weighing and measuring of children.

One of the lectures which I gave to my teaching staff that was received with greatest enthusiasm, was a very simple lecture on communicable diseases, little simple things that I thought every classroom teacher did know, but I thought they would have to review. It was taken with such enthusiasm that they asked me to repeat it in different groups of teachers, both in the grade schools and junior and senior high schools, so I have assumed that a great many things which we think are simple are not so simple, and that it is necessary to reiterate. I have felt that one of the early things in health education is that the teacher shall understand what we mean by health service, what we are trying to do for the child in the matter of health service, before she can start in very definitely on her health education program.

Education and Health Service

Take, for instance, the matter of the examination of children. When I first entered school nursing the school physician came very hurriedly at nine o'clock in the morning and ran through a couple of hundred children by noon. Perhaps that was health service, but it was not health education, to my way of thinking. It seems to me if we have a limited amount of funds for our school physicians, it is better to examine only once in two years, or once during school life, and have it really a health examination, a health education service, than it is to examine every year and have it really amount to almost nothing. So I think health service is one of the big points in health education which we have to get to the teacher as soon as possible.

The next thing, I think, is an analysis of the physical needs of the child, and of course that involves a study of the normal child. After getting some idea of what a normal child should be and what a normal child should do to keep well, a teacher is more nearly ready to start in with definite health instruction and teaching.

There is then an analysis of the needs and attitudes which are to be formed, things she must get before she can go very

far. By this time she is probably able to get started on possibly a more nearly normal curriculum.

In Des Moines, the first thing we did after going through health service and getting everyone to understand why we were having a morning inspection, how we could control certain diseases, and how we could not control certain other diseases, was to start asking the teachers to put down on paper what they were trying to do for children and why they were doing those things. Some of the teachers had worked out courses of study definitely for themselves, based on the actual needs of the children as they came into their rooms, and that is my idea of what a health education service should be. It absolutely should be based on the physical, social, and emotional needs of the child.

We have not been doing as much as we ought to do in studying the personality of the child. It isn't always necessary to have a mental hygiene specialist. We can do a lot in studying the personality of a child even without a specialist, and we can find deviations from the normal and refer them to specialists.

A Curriculum Built on Needs

Then we can set up a tentative curriculum on the needs of the child as the teacher finds them, and again the health education specialist must guide her very definitely in finding out not only the needs of the child but the needs of the community. A tentative curriculum should be built up around both needs. One which is handed out by somebody is to my mind of no value.

A number of years ago I was made chairman of a committee to write up a course of study, and I did not even know what a course of study was; I do not know that I know now, but I know more than I did. I felt that a course of study could be set up that could be used throughout the entire school system. We know, of course, that is not true. We have to write up a course and change it every year, and within the year, and we change it to meet the needs of the children as they come to us. I think that is perhaps one of the biggest things in a health education program, to know we have to change as we go along.

I think usually in or near cities of some size, we can find some way of getting the teacher to get the special information from other sources outside the school system.

For instance, at Drake University, we have a school of education. We do not have definitely health education work there, but we did find a physician who knew quite a bit about health education and got him to give a course of study. The first year it was independent of the school work; the following year he coöperated with our health department and we made his courses at the university connect definitely with the actual activity of the teacher in her schoolroom. So we got a very good connection between the theoretical viewpoint of a pediatrician and the actual work of the teacher in the school.

Chairman Cunningham: Miss Brown, will you say a few words?

Miss Brown: I have a very definite feeling about training the teacher-in-service. I have heard so many people say: It is so hard, how do you get teachers interested in health education? How can you get them to take the extra training in service and spend the extra time, when their program is already so full?

The only trouble, I think, is that it is like going upstairs in the dark. You think there is a great difficult step ahead, and you take it, and you come down plump with the feeling that there is no step there at all. You have to restrain teachers from overworking when they once understand.

I feel that the point of attack in establishing a health education program with teachers already in service who have had no preliminary training, is simply to show them the child and then they are all alike, otherwise they would not be teachers. If they find that by their own efforts they can materially and obviously improve the condition of the child, they have to be restrained from spending too much time and too much of their own energy on it.

A First Step

So the first step, it seems to me, in any program for training teachers-in-service is to teach them to make a normal diagnosis

of their children as they sit before them in the classroom. If a teacher gets the vision and the idea of sizing a child up,—not as to how many defects he has, and not as to how many glasses of milk he drinks a day, or even anything of as supreme importance as which way he brushes his teeth,—if she gets a picture of each child in the light of his utmost health capacity, and how far he falls short of the utmost possibilities of that particular child, then she immediately begins to try to find out why that child is falling short, what conditions outside or what classroom conditions that she is responsible for may contribute to his falling short of this utmost capacity.

The next step is to allow her to use reference material. It does not do to plump a lot of library material, no matter how valuable, how carefully selected, before a lot of teachers who are in the classroom all day long, whose evenings are taken up with extracurricular work, and say, "Now, to begin with, you must acquire a lot of information about your children." You will have an insurrection on your hands very probably. But when the teacher begins to study her child in the light of making a normal diagnosis of him, then of her own volition she is going to ask you where she can find out this and where she can find out that, and reference material will be used. The approach is to introduce the teacher to the children, and then everything else comes.

Chairman Cunningham: Thank you, Miss Brown.

Summary Points from the Discussions of the Elementary School Section

These summary points developed out of the discussions and committee meetings of the Elementary School Section, in which the various elements of a health education program were evaluated in the light of the general criteria prepared for the conference. The statements do not include references to all of the important subjects in elementary health education but are indicative of the group opinion relative to those topics which could be discussed within the time limitations of the conference.

Criterion 1: Do the health activities and materials conform to scientific knowledge and procedures? Is the subject matter valid? Are the teaching techniques in accord with the laws of learning?

1. Health information must be recognized as subject to change with the advance of scientific knowledge.
2. The best knowledge available at any time should be used in teaching.
3. The attitude of openmindedness should be developed in teachers and children in order to meet the possible changes in knowledge.
4. Health education at the elementary level, is primarily concerned with the establishment of desirable behavior.
5. Health facts are probably most useful at this level as a means of increasing appreciation of values of habits already initiated. They may, however, occasionally serve as incentives to behavior.
6. Children learn to appreciate healthful practice more through doing the act than through learning about it.
7. Research is needed to establish more clearly the relation of health knowledge to health conduct.

Criterion 2: Do the health activities and materials satisfy the fundamental educational objectives?

1. Health service is essentially an educational rather than a corrective program.
2. A unified curriculum of elementary instruction should include health as an integral part.
3. Health education, at this level, should be recognized by the teachers as a program of activities which relates to and is dependent upon other school activities.

Criterion 3: Do the health materials and activities integrate mental, emotional, social, and physical health values?

1. No health activity should be encouraged which, although sound from one of the above aspects, is unsound in others. The mental health aspect of the health program is of equal importance with the physical health aspect.
2. Attention should be given to the possible results of engaging children in certain activities through a motivation which, in the long run, is likely to prove false and may react unfavorably upon the child.

Criterion 4: Do the health activities and materials provide for differences and needs of individuals and groups?

1. Since the use of standards such as Blue Ribbon, Five Point Child, etc., was recognized as a genuinely controversial question, it was recommended by the Elementary School Committee that further consideration and caution be used in the adoption of such standards.
2. Health programs should be formed in relation to the individual characteristics of the school and community, rather than adopted from some prearranged plan.
3. Efforts should be made, by those in charge of the health education program, to acquaint better the classroom teacher with the nature of individual differences within the class groups.

Criterion 5: Are the health activities and materials so related to life situations as to be significant?

1. Health experiences are a part of all life situations and this relatedness to life should be made meaningful to children.
2. Sanitary surveys, immunization campaigns, and other activities of this nature in the school health program should be used in such a manner as to disclose to teachers and pupils larger community health values.

Criterion 6: Do the health activities and materials lead into further constructive activities or materials and into wider interests and understandings?

This was recognized but not specifically considered in the report of the Chairman of the Committee.

Criterion 7: Are inherent interests developed and guided to realization within the social group?

1. Objective studies of interests of children, particularly those which are valuable in health teaching, are urged.
2. For want of objective studies of such child interests, organization of the health program at present must be based upon obvious and common interests, in so far as they may be reasonably identified as such.

Criterion 8: Does beneficial individual behavior emerge from the health activities and from the use of health materials?

This was recognized but not specifically considered in the report of the Chairman of the Committee.

Criterion 9: Do the activities and materials secure the participation and coöperation of parents, school administrators, teachers and pupils, and community agencies?

1. It is recommended that the health program or curriculum be organized to provide for the active participation of school specialists, home economics supervisors, physical education specialists, doctors, nurses, and classroom teachers.
2. It is desirable and feasible to gain the coöperation of these specialists with the classroom teacher in developing health units or activities within the classroom.
3. It is recommended that cumulative records be kept in the elementary grades and that they be made available and interpreted to the teacher and parents who have reason to be interested in the welfare of the children.
4. All cumulative health records should be kept in one place and should be kept up to date.

Criterion 10: (Set up by the Elementary Section Committee at the conference). Health materials and activities should provide for progression of experience.

1. Minimum standards of achievement should be set up in health habits, attitudes, and knowledge by the end of the elementary school level.
2. Research is needed which will determine the essential content of the elementary health curriculum based upon the children's needs.
3. Until adequate research is made it is recommended that the secondary school should not assume that habits and attitudes which may have been included in the elementary grades are necessarily established.

ELEMENTARY SCHOOL SECTION COMMITTEE

Dr. Bess V. Cunningham, *Chairman*
Miss Juliet Bell, *Secretary*

Mrs. Ethel Bliss
Miss Margaret Brown
Miss Reba F. Harris
Miss Helen M. Howell
Miss Nina B. Lamkin
Miss Grace Langdon
Dr. Marion O. Lerrigo
Miss Mary G. McCormick
Dr. Alvin Powell

The Relation of Health to the Elementary Curriculum

Hattie S. Parrott, Supervisor of Rural Education, State Department of Public Instruction, North Carolina

We are attempting through county supervision to train the teacher-in-service to have regard for the total needs, physical, mental, emotional, and social, of the individual child, and to the importance of working out a growing, developing curriculum based on the social and learning needs of children.

Since health education should be given first consideration in building a curriculum to meet the needs of the individual child, it should be thought of in its relation to the all-round development of the child when formulating the school program.

In illustration of the above viewpoint, I present a report of work from the rural elementary schools of North Carolina which shows the general trend, the specific organization, and, the coördination of the various elements or factors of the curriculum.

The Theoretical Value of an Appraisal of Material

The new elementary school should set up objectives in accordance with the social and learning needs of children and make certain that they obtain the knowledge, skills, attitudes, and ideals conducive to the development of their general well-being. The school must strive to secure a pervading atmosphere of complete living that will function in the child's everyday life. Before this is possible, however, it will be necessary to make a very thorough and interpretative analysis of the needs of those children who present themselves to be instructed in the elementary school. By virtue of its prime significance in relation to child growth, the solution of such a problem should claim its rightful place as the first essential step in a child development program.

For many years, parents have turned their children over to the school with little thought of whether or not the complete

physical, mental, social, and emotional equipment they were taking would fit them creditably for school life. The school entrant has long been neglected, for little attention to this question of proper habit formation during the early, impressionable period was given. Today, however, we are witnessing a great change in our conceptions of the educational importance of the early years of childhood, as a result of closer study of infant behavior and of increasing knowledge of the way in which early habits, acquired likes and dislikes, and emotional attachments are built up and the way in which they condition the individual's entire later life. Sentiment is growing and fast becoming an established fact that "parents may make their best contribution to the schools by training their children during these preschool years; so that when they enter school they will be physically fit, mentally alert, and morally upright" for the work ahead of them.

Expert opinion tells us that all the evidence on this point goes to show that if there is any one most important period in life for education, it is the first six years of childhood. It is during this time that fundamental character traits and patterns are determined. "Emotional attitudes and dispositions are the mainsprings of conduct, rather than knowledge or skill, and a conscious, deliberate effort to control their formation is education at its best."

Although different parent groups and others are studying the essential problems of child development prior to the school age in an effort to promote training for more efficient and intelligent service, the school must accept the product as presented for admission throughout the system.

However, in educational practice, we sometimes find ourselves forgetting that we must here, perforce, be dealing with a whole child who must be considered against the background of his parents and his home, as well as in the environment of his school and community. Likewise, we overlook the fact that we need to help develop a close integration of all forces which contribute to the making of personality in order that such an individual may respond as a well-rounded whole and not in parts.

In the past, we have been too dominated by subject matter

to give proper attention to such matters as physical, mental, emotional, and social health of children. Today, instead of forcing children into molds, we are beginning to reorganize our courses of study, methods, and discipline to fit our pupils as they are, not as we grown-ups think they ought to be. The big tendency now in education is to give the child the best opportunity possible to learn. Briefly, let us take a closer view of these physical, mental, and social aspects in their relation to child development.

The large percentage of physically defective children in our public schools, the relation between physical growth and school progress, and the relation between mental and physical development, all point to the need of wide-spread information in regard to physical growth and development of school children. A knowledge of a child's stage of physical development is an important factor in placing him in the grade where he can do his best work, in prescribing the amount of school work he should be expected to do, in promoting him, in providing suitable school equipment, in directing his physical training and choice of games, and in interpreting his stage of social maturity.

Psychologists state quite emphatically that the physiological age is directly correlated with stages of mental development. The physiologically more mature child has different types of emotions and interests. It is a wise step then to apply the laws of physiological growth to the practical problems of health education and mental development.

Until recently, we have assumed that all children had approximately equal capacity. We are coming to realize that all children cannot progress at the same rate and therefore should not be expected to cover the same amount of work in the same length of time.

Education must be undertaken in a different way. Even its very aim must be differently conceived. While scholarship used to be, perhaps, the best expression of this aim, citizenship tends now to take its place. Knowledge in this case is not omitted or neglected, but subordinated.

If we believe that it is the inalienable right of every child in the public schools to develop at a rate normal to his full

capacity, then it is clearly our duty as teachers to secure for him this opportunity. We know that we are dealing with many growing and different personalities and we do not expect any one procedure to fit all children equally well. That we must plan to meet the particular possibilities of differing personalities has become a truism.

Such aims as these require very radical changes in the curriculum. In order to appeal to the tastes of children, in order to arouse their ambitions and inculcate purposes so that they will have energy to think and plan and do, new kinds of subject matter must be selected. Not only must it be more stimulating, but it must be more plainly a kind that identifies the child with social situations as well. Such demands as these are difficult to satisfy, but they are now persistent and pressing.

There is no such thing as a distinct social and moral training apart from the rest of the child's development, for this development is so closely interwoven and correlated with the child's complete life that we cannot disregard its presence.

For the child of early elementary school age, moral training is largely social adaptation which he must receive through experiences in school. Situations should be provided to appeal to the play instinct, which is prominent at this age, and to his desire to do, in order to form right habits and attitudes, such as obedience, consideration of others, and respect. Opportunity should be given for the gradual taking over by the children of responsibility for the organization and conduct of the group, thus forming habits of self-control. In fact, the daily life of the school should offer a continual series of situations calling for ethical judgments and teachers should be on the watch to make them profitable.

If it is true that the foundations of physical, mental, emotional, and social development are largely laid in the early years, it follows that school authorities should make a thorough check on the four-fold development of the child when he enters the elementary school. There are certain children in every elementary school whose normal growth along these definite lines has not been well-rounded and so has not kept pace with their level of maturity. As a result of these differences in equipment, maladjustments are prevalent. Therefore, a careful

study of the child's complete equipment from the points of our seven standards—his health, his work, his play, his home, his school, his coming citizenship, his spiritual growth—is necessary.

Practice Justifies an Educational Clinic

The first grade is the child's first test in the school of life. It is estimated that one out of every four fails that test. Why is this true? Partly because he is sent to school unprepared and handicapped with certain physical defects, socially immature, emotionally unstable, and so forth, all of which seriously interfere with his general development. It is not surprising then that the largest percentage of left-overs occurs between the first and second grade. Herein lies one of our greatest and most significant school problems. At the outset, schools enroll potential repeaters who not only drag through the year's work and build up incorrect habits, but hinder the progress of others in the group.

On the basis of the previous year's study of the physical findings of all first-grade entrants examined at the first of the term, an unanswerable argument was gained for the need of an earlier investigation of the preschool children. We believed that no single activity would give greater returns than to have every child enter upon his school career with all remedial defects corrected. Accordingly, with the coöperation of the county health department, a preschool clinic was held early in May for the purpose of making a thorough check on our first-grade entrants. About 50 per cent of the prospective beginners were given thorough physical examinations and vaccinated against smallpox. The results were reported to the mothers with definite suggestions as to how each child's physical condition could be improved. We considered the work of the educational clinic* a powerful means of insuring to every child a fair start in school.

A check-up on defects corrected during the summer was made at the opening of schools in the fall. With the help of the

* For further description, see "Plans for Educational Clinics Including the Beginner's Day Program," North Carolina State Educational Bulletin, No. 149.

county nurse and home agent, a coöperative program, including systematic monthly weighing and measuring, was carried out in each school. On the basis of the findings in each case, proper remedial work relating to diet, rest, exercise, and general health habits was planned to fit the individual need as found. Every means possible was used to make habitual those practices that would make for health gains. This served to place the responsibility on the child to improve his previous record and to create a desirable attitude toward health. Response to the special training offered supplied a further guide in directing general development and growth.

To further insure the greatest possible development of these children in relation to their ability to make progress, all first-grade children were given mental tests during the first week of school. After a careful study of both the physical and mental status of each pupil tested was made, the class was grouped for teaching purposes on the bases of the composite results found. Those children who did not show a readiness for first-grade work (both physical and mental), even though they would be six years of age by January 31st, were not permitted to enter. This eliminated a number of immature children who could not have made normal progress. At the very outset, our teachers began a thorough study of all first-grade children in relation to their family history, and their developmental history, including the physical, mental, and social phases of their growth to date. The various types of differences found in the children, their interests, chronological age, mental age, acquired abilities, physical development, emotional and temperamental differences, all called for an adaptation of materials and methods to the measured needs of the individual groups.

After the class divisions were made, the course of study was planned to meet the needs of the different sections; the children were grouped so that certain types of instruction would fit the different types of minds in the group. This adjustment of material to fit the different ability levels gave us our greatest concern. This differentiation was accomplished by using materials adjusted to the needs and interests of each group, considering the time in which the different groups should cover

the work, and making assignments to cover the ability level of each group.

Since we believed that activity with real motives for work was the true basis of growth and that a natural life situation was the basis for creative expression, we centered our course of study the first of the term about the experiences and natural human interests of the children. In order to secure natural life situations within the schoolroom, a number of the first-grade teachers made a brave attempt to provide an environment that considered both the needs and the desires of the children. As the units progressed, special study of the habits and attitudes being developed by each group was made. Here are some of the most important points we tried to stress in our classroom activities:

Personal self-dependence in care of own things and in surroundings.
Right attitude toward school and school work.
Respect for older people.
Initiative.

Resourcefulness.
Profitable use of leisure time.
Fairness toward others and self in games.
Civic responsibility.

Right attitude toward conduct.
Respect for feelings of others.
Ability to talk intelligently before group.
Interest and participation in group activities without self-consciousness.

Consciousness of rights of others.
Respect for contributions of others.
Knowledge—information—concerning his everyday life and environment.
Keen powers of observation.

Desire to share with others.
Desire to create.
Ability plus a desire to read and write that prompts voluntary "doing."
Ability to plan and carry out own plans.
Ability to present worthy judgments.

Evidences of reading progress were likewise checked very carefully and in this way, no child was forced into regular primer reading before he showed a readiness for this stage.

In the main, Group I has done more work than either of the other groups because they were mentally mature for first grade. The quality of all their work was above the average for first grade. All who continued in the group will be promoted. A strong, self-reliant, enthusiastic class, they were always busy and always interested.

Group II was a more irregular group. They have done fairly average work and have mastered minimum amount of work planned for first grade.

Group III, the slowest children, plodding along at their own pace, have formed habits of steady work. They were not allowed to begin actual reading until we felt their minds had developed to this extent. There should be no lack of material to enlist the interest of the slow group.

Children advanced from one group to another whenever it was possible. A definite program of procedure was planned for each group, according to their various abilities, as shown by this classification. This enabled each child to make progress at a rate commensurate with his power to grow. The results proved most beneficial to the children. Teachers of these groups were enthusiastically in favor of grouping according to ability. The following results were noted:

By using improved methods of grouping when children first enter school, much of the confusion and overlapping—the wide scattering in ability and attainment in the higher classes—was avoided.

Most noticeable improvement was not in the greater ground covered, but that every pupil was sure of every step of the work.

Numbers of absolute repeaters were reduced.

It succeeded in equalizing the opportunity of first-grade children by making it possible for both the bright and the slow child to attain a 100 per cent achievement quotient.

It cannot be doubted that these children have grown in every way, socially, physically, mentally, emotionally, and will

be ready to attack school work next year on the first-grade level. We can safely conclude that in this case, as in many others, a study of the physical, mental, and social habits of the pupils was most essential to the best teaching procedure and to the best interests of the children themselves. It guided the teacher and supervisor not only in the choice of materials and the selection of situations for the best learning, but also in the methods to be followed.

Our schools have labored during the past year to secure a pervading atmosphere of good citizenship that would function in the child's everyday life. In attacking this problem, both teachers and pupils first made an inventory of the positive conduct qualities that boys and girls should practice. After much weighing of values, the group then determined the essential courtesies most needed to be developed and set up definite standards to approach during the term. The problems included the following:

To choose for emphasis courtesies which practiced day by day would best help the child form habits of right thinking and harmonious feeling toward others and his surroundings.

To create normal situations for the child in order to develop and establish these habits.

All school activities that involved natural, positive situations for raising the levels of conduct in a first-grade citizen were utilized in presenting ideals of behavior and in making good practices habitual. Every school procedure and every child activity were considered in their bearings upon character-building and general training.

As an aid in promoting our first-grade children, standard tests in achievement and mental ability will be given at the close of the term. Physical examinations of all prospective repeaters have already been given.

A Final Criterion

As a final criterion, we should measure the success of our teaching by the degree to which we help children live in this

democracy of ours and assume the responsibilities necessary to a full and purposeful life. In order to accomplish this finally, we must keep ever before us worthy educational goals that are centered around the development of the whole child. As a beginning effort, we have manifestly striven to accomplish these objectives:

To keep the proper balance between the child's mental and physical activity by giving the growing muscles a chance for exercise in the various activities of the day.

To help the children gain sound mental and emotional stability. To do this, we must see that children are happy, that their relations toward one another are natural and friendly; that they work without strain, and that they are given a rich and stimulating school environment, because they think with things.

To train children in:

- Practical efficiency.
- Good citizenship.
- Good health habits.
- Social-moral development.
- Wise use of leisure time.
- Worthy home membership.

The school must inform the home of its program and purposes and just what the function of the home should be in carrying them out. For example, if health is an essential feature in education, then the understanding and coöperation of the home is essential to success, for the fundamental functions that make for health—feeding, sleeping, resting, playing—are carried out chiefly in the home. Through the pupil's progress card, this has been more successful than ever before. Here the mother checks certain health and social habits as satisfactory or unsatisfactory and shares the responsibility with the teacher.

Although our problem has scarcely been analyzed yet, we realize the need for a changed viewpoint in rural educational practice. It is our desire to contribute our best in this direction until we have mastered a procedure that will help us give our rural children the well-rounded development they need.

The Health Education Program in Halifax County

Since the possibility of instilling health knowledge and health habits is greatest in the school period of life, the school therefore has clearly two duties to perform. One is to assist in preventing physical defects and disease; the other to assist in furnishing the teaching and the training that will make and keep the body well and strong. The school can fully discharge these duties only when every schoolhouse is both sanitary and safe, when every school is the beneficiary of medical examination and health supervision, when every school child is thoroughly trained in body, in health habits, and in right living. To this end must be devoted the combined support and activity of all who are anxious to promote human efficiency and human happiness. A special and detailed report of the health program in one county gives the outline of activities and results obtained.

In order to promote such a project, all of the forces in the county are coördinating their efforts in an attempt to launch and to carry out a comprehensive program that will make for physical well-being and provide an environment favorable for growth and productive work. Such a program will include (1) health service, which covers protective measures to conserve and improve the health of the children, (2) health education—the sum of experiences in school and elsewhere which favorably influence knowledge, attitude, and habits relating to health, and (3) physical education, the big brain-muscle activities such as play, athletics, swimming.

General Aims of Program

To develop favorable attitudes toward the practice of good health habits.

To secure the coöperation of the child in all measures which tend to help children reach the maximum of physical, mental, and social fitness.

To increase continually general knowledge on health subjects which will guide the child's actions.

To surround the child with such environment and practices as are examples of the highest health principles.

Contributory Health Education Factors in the Child's School Day

The spirit and example of the teacher.
The school environment.
School practices and children's activities.
Correlation of health and other subjects.
Direct health teaching.

The Health Education Program Outlined

I. Physical Conditions of Children
Early examination of children in school whose record varies widely from the standard.
The conduct of a preschool clinic for all first-grade entrants.
Encourage prompt treatment of all defects found.
Precautions against the spread of diphtheria and all other contagious diseases.
Strict observance of individual drinking cups.
Pure water supply.
Clean habits of conduct; no spitting, coughing with mouth uncovered, and so forth.
Immunization of all pupils.
Regular monthly weighing and periodic measuring of all pupils.
Physical exercises given regularly and systematically.
Encouragement of all outdoor sports, as games, hikes, races, etc.
Definite playground activities planned to fit needs of various groups and then supervised very carefully by teachers in charge.
Play periods scheduled *not* to precede immediately or follow the lunch hour.
Rest periods given throughout the day when needed.
All children spend *each* recess in fresh air if possible.
Attention paid to food.
Effort to add at least one hot dish to school lunch.
Supervised indoor lunch periods throughout each school. All children wash hands prior to eating.
Encouragement in drinking sweet milk and the eating of fruits and leafy vegetables.
Establishment of pertinent health knowledge and the carrying out of desirable health rules by means of:

A definitely organized health campaign, as:
Health Crusaders.
Health club.
Junior Citizenship Club.
Junior Red Cross.
Contests.
Playing the game.
Live hygiene classes.
Pupils' report card, health habits developed.
Direct health teaching.
Correlation of health and other school subjects.

II. Sanitary Conditions of Environment
Building
Cleanliness of floors, walls, and windows throughout the building.
Rooms swept after school.
Proper ventilation of rooms during school hours.
Windows raised at each recess.
Use of floor oil or dust prevention.
Orderly arrangement of mounted work, teacher's desk, pupils' desks, library, cloak rooms, lunch equipment.
Grounds
Absence of paper and all unnecessary rubbish from school grounds.
Beautifying of school grounds.
Strict attention to sanitary condition of toilets.
Observance of clean-up program.

A consideration of such results as have been obtained is of interest here.

Procedures and Results

I. Physical Conditions of Children

In coöperation with the County Health Department and the State Board of Health, a preschool clinic was held in every school community the latter part of March. Sixty-five per cent of the first-grade entrants were weighed, measured, and examined. The others will be checked the early part of the fall term. A large number were vaccinated for diphtheria and smallpox.

About seventy-five children had their tonsils and adenoids removed during the county tonsil clinic in September. Other children had certain remedial defects corrected before the schools opened in the fall.

Individual drinking cups were used for the most part throughout each school.

All pupils in every school were weighed each month and an accurate record of findings kept. The list of normal weights increased to an appreciable degree.

The majority of the schools conducted definite play periods at other times during the day than the regular recess and the lunch hour. For the most part, the activities were planned to fit the needs of the various groups and then supervised by the teachers in charge.

Seventy-five per cent of the schools supplemented the cold lunch with one hot dish.

The supervised indoor lunch period with all its attendant health features was observed throughout the county. With few exceptions, the children wash their hands before eating.

A variety of methods, both direct and indirect, were used in every school to establish desirable health rules. The children not only became conscious of their responsibility, but also assumed their part by learning health through practical activities and experiences in life. The pupils' report card proved a valuable aid.

Individual attention was given to the diet, rest, exercise, and general physical condition of those children whose record varied widely from the standard.

II. Sanitary Conditions of Building and Grounds

A thorough clean-up-day program was observed in every school in the county last fall.

In addition to janitor service, room committees were responsible in several schools for neatness and cleanliness of building and grounds, also for proper ventilation of rooms during school hours.

An effort toward beautifying school grounds was made in nine schools.

Present Needs

A more comprehensive health education program to follow as guide.

The setting up of achievement standards for each grade.

Provision for a more adequate supply of materials with which to work.

AT WORK IN SPECIAL SESSION

Health Education in Secondary Schools

"There is a very large percentage . . . of the high school population which is suffering definite handicaps because of the high-school program. In attempting to correct health defects, we might find out what we are contributing toward producing them."

Chairman Bailey

"WE are to discuss first," said Chairman Edna W. Bailey, in considering health education in secondary schools, "organization, and the discussion should center around the activities of the administrator, teacher responsibility and coöperation, and home and community coöperation. I think we shall not have a more important meeting than this one." Dr. Bailey explained her emphasis on this point of organization further.

Dr. Edna W. Bailey, Associate Professor of Education, University of California, Berkeley, California:

Much of the energy which we should be spending on health work is being expended on finding out who should do a particular piece of health work. This is not a wholesome situation. A clear definition of functions and the allocation of responsibilities are needed to release our energy for our jobs. I think we fail to consider how important it is that there should be a frame set up within which we could all function smoothly and efficiently. We will hear from Miss Rowell first.

Miss Hannah W. Rowell, Health Coördinator, University High School, Oakland, California:

I am to explain the organization of the health program in the University High School. We have the additional problem there of teacher training because we receive the cadet teachers

from the University of California who come down for their laboratory work in teaching.

At the head of the system we have the administrative staff of the Oakland public schools, since this is a public school belonging to the city of Oakland. Directly responsible for the health program within the school is the principal of the school. He is advised by two committees, one on health education, composed of representatives of the Department of Education of the University of California, the Department of Hygiene of the University of California, and the Department of Health Development of the Oakland public schools; the other is on the health of student teachers.

Under the principal, we have the administrative staff, composed of the vice-principal and the health coördinator, who are directly responsible to the principal for the conduct of the health program within the high school.

The health program is in two divisions, health service and health instruction. Responsible for the whole health program within the school is a school health committee which meets once a month. It is a very large policy-forming committee composed of most of the people who are interested in health service and in health instruction. In addition, it has a representative of the parent-teacher association and representatives from the University of California. The health service also has a committee, which usually meets once a month, but can meet more frequently on call. The health instruction committee does not meet so often.

The personnel of the health service includes two doctors, a man physician for boys and a woman physician for girls, each of whom gives one day a week at the University High School, and one half-time nurse. They are directly responsible to the administrative staff through Dr. Alvin Powell, who is the director of the health development department for the Oakland public schools.

The teaching personnel is composed of the entire teaching faculty of the school, the administrative personnel, and the counselors, who have as their principal function the planning of programs for individual students, and to some extent advising them as regards their conduct in their school life. The

custodian, of course, is responsible for the sanitation of the school, a very important part of the health service.

The health instruction is given through the regular departments of instruction in the school. Those which are principally concerned are the physical education department, the home economics department, social science, natural science, and incidentally, all the other departments. These various departments work through the student teachers, who are a special problem at University High School, and through them reach the pupils.

Miss Edna Young Bond, Child Health Director, New Jersey Tuberculosis League, Newark, New Jersey:

May I ask if a health survey was made prior to the set-up of the program? If so, was it under such headings as school environment, health instruction, health supervision?

Miss Rowell: Yes, all of those things.

Miss Esther Sherman, First Assistant, Department of Health Education, Public Schools, Detroit, Michigan:

How do you control the school cafeteria and see that it is properly managed?

Miss Rowell: The manager of the lunchroom is responsible to the principal.

Miss Sherman: Does he or she work with the school health committee?

Miss Rowell: So far she has not worked directly with the school health committee, but has worked through the principal. We have attempted cafeteria surveys to determine what the children eat, and she has been most coöperative and interested.

Miss Miriam Birdseye, Extension Nutritionist, United States Department of Agriculture, Washington, D. C.:

Is there any connection between this manager of the lunchroom and the home economics department?

Miss Rowell: No.

Miss Alice Evans, Assistant Professor of Physical Education, University of Michigan, Ann Arbor, Michigan:

Is your home economics teacher on the school health committee?

Miss Rowell: She is on the health instruction committee and also on the school health committee.

Miss Ethel Perrin, Staff Associate, Division of Health Education, American Child Health Association, New York:

May I ask the speaker to explain her own position?

Miss Rowell: I am the health coördinator, whom I mentioned very briefly, and who, with the vice-principal, constitutes the administrative staff. I am secretary to all three committees. It was originally intended that I should be chairman. As it has worked out, the assistant health coördinator is chairman of the school health committee, the principal is chairman of the health service committee, and the head of the social science department is chairman of the health instruction committee.

Miss Effie F. Knowlton, Director, Health Education, City Schools, Binghamton, New York:

Will the speaker please explain her duties quite specifically as health coördinator? I have organization in mind.

Miss Rowell: I am responsible for the collection of statistics, and for reporting to the principal and his vice-principal the health conditions within the school. I report daily, weekly, and monthly on the number of absentees returning after illness. I report on the work of the doctors and the nurses, and report on any surveys that are made of the public health situation in the school. It is my business to keep the principal and vice-principal informed.

Perhaps the most important phase of my work is the transmission of health information from the medical and nursing personnel to the administrative staff and the teachers in the school, and the gathering of information from the teaching and the administrative staff to carry back to the medical and nursing personnel, to assist them in their contacts with the pupils.

Miss Nora L. Reynolds, Acting Director, Child Health Education, National Tuberculosis Association, New York:

I would like to ask about gathering statistics as to what work the students do after school. I have found it to be a big problem in some of the schools I visited, but I have not found anyone in the school system who knew just which children they were, how much and what hours they worked. Is that one of the points you cover? Could you tell us just how you get that information to the different people to whom it would be useful knowledge?

Miss Rowell: We do not happen to work on that particular problem but the usual procedure in transmitting statistical information to the rest of the school is to have it duplicated. Individual copies are sent to the administrative staff and to the counselors, and then one copy is posted for the rest of the faculty. We have a bulletin board used for that purpose. It is accessible to members of the faculty, and not to the student body.

Miss Reynolds: Would that bulletin be more or less interpretive of the situation?

Miss Rowell: It just states the figures.

Chairman Bailey: Will Miss Rowell tell us the use made of teachers' meetings?

Miss Rowell: We have the regular faculty meetings, in which the entire faculty gathers together, about every other week. Each meeting is devoted to some specific topic, providing an ideal opportunity for bringing up health problems and discussion.

Dr. Ruth Strang, Research Associate, Teachers College, Columbia University, New York:

In addition to exerting your influence through the committees and through conferences with principals and teachers, are there any other ways in which you exert your influence as health coördinator?

Miss Rowell: I work directly with the doctor and the nurse.

Miss Perrin: Do you do any teaching?

Miss Rowell: The health coördinator's position in this school is a part-time one, and I teach half a day, but I do not teach health. I teach science.

It may be a little bit off the subject of organization, but I think it will perhaps clear up our thinking to say we do not have any regular courses in health instruction. The health instruction is given through other regular courses of instruction existing in these departments. For instance, the bulk of the health instruction in the seventh and eighth grades is given through physical education, home economics, and natural science courses. It is taught as an integral part of those courses and it is not labeled "health instruction for the pupils."

Miss Perrin: Are you the coördinator of that subject matter?

Miss Rowell: Yes, working through the health instruction committee.

Miss Sherman: May I ask who takes care of individual conferences with children in regard to health matters, and who actually adjusts the programs after you have the health service?

Miss Rowell: The counselors are the people who actually adjust the programs. Of course the vice-principal also makes program adjustments. The counselors work under or with the vice-principal.

Miss Evans: Is a certain proportion of the school body assigned to each counselor to watch during a period of time, and is that counselor especially informed on the child?

Miss Rowell: They are originally assigned by grades. Then as the children progress in high school they continue with the same counselor.

Chairman Bailey: They are the equivalent of an overgrown homeroom teacher. They have 200 children apiece. They do not see them as a group. They are advisors.

Mrs. Ora Hart Avery, State Supervisor, Home Economics Education, State Board of Education, Richmond, Virginia:

Do you get any background of the schools from which these children come? As coördinator do you coördinate this school with the grammar school? Is there a way of finding out just what health habits they carry out, or how far they have progressed along the line of health when they get into the high school?

Miss Rowell: The high school receives the health cards and the record of intelligence tests from the elementary schools from which the pupils come. The only way of finding out what health habits they carry out and how far they have progressed when they get into the high school is when the school nurse happens to serve also in the elementary school from which the child comes. We draw from several elementary schools, however. The nurse is only on duty at one of them. So there is a large section of our student body concerning whose health habits we know nothing at the time they come to us.

Mr. Floyd R. Eastwood, Teaching Fellow, Department of Physical Education, New York University, New York:

Does the elementary school organization follow a similar set-up, or are they two distinct problems? Is there any continuity between the elementary and the high school?

Miss Rowell: They are two distinct problems, but the director of health development of the city schools is responsible for the elementary and the high school programs, so there is a continuity both in organization and method. There is a general health committee in Oakland representing all the Oakland schools and the health department, so it is a fairly well coördinated system.

Miss Knowlton: May I ask one question concerning the general organization in the city of Oakland? Are physical education and school health service, including health instruction, coördinated under this one director of health development? Is he also the director of physical education?

Miss Rowell: No, but the school health committee would be a coördinating factor.

Dr. Strang: May I ask what is the function of the first vice-principal, in connection with the health program? Is her work largely the personal advisement of students? Does she have any place in the entire health program and does she serve on committees?

Miss Rowell: She gives a good deal of personal advice to the girls and serves on all committees except the health instruction committee. Medical advice to pupils, and health-habit advice to individual pupils, is given by the doctors largely, and to some extent by the nurse.

Mrs. Avery: Might I ask the approximate cost?

Chairman Bailey: It costs $2500 a year,—$1000 a year for medical service; $1000 for a half-time nurse; $500 for a clerk. Miss Rowell works on the regular educational budget.

Miss Rowell: I should like to make one other point clear. The University High School is being used as a trying-out ground for this kind of a health program in the secondary schools. The other Oakland high schools do not have as elaborate a health program; they do not have nearly as much doctor's time and they have no nurse. If it works at the University High School, the hope is that it can be extended into the other high schools of Oakland.

Miss Perrin: Are you setting up an experiment with the other high schools as a control?

Miss Rowell: No. We thought about that but there isn't any way on earth of getting the data until you have a set-up.

Miss Mary B. Hulsizer, Instructor in School Hygiene, Board of Education, Newark, New Jersey:

May I ask whether the supervisor of the lunchroom is directly responsible to the administrative group, or whether she is employed by an outside agency?

Miss Rowell: She is directly responsible to the principal of the school and employed by the school.

Miss Birdseye: Is the work of the cafeteria considered a part of the health organization of the school? Is that definitely looked upon as a part of the contributions of the school in educational as well as actual work?

Miss Rowell: The school cafeteria is a financial problem, but we do regard it as a part of the health situation in the school, and we are trying to make it contribute to the best health of the student body and faculty.

Miss Birdseye: Then it is definitely supervised for that purpose. Did I understand you to say you have a trained dietitian and home economics person in charge of it?

Miss Rowell: No, we have a subcommittee of the school health committee that makes the cafeteria a special interest. It surveys the whole food situation within the school. It is more than a cafeteria problem. We have a window from which lunches and minor refreshments are served, which is also part of the problem.

Dr. Strang: Do you consider your administrative set-up at Oakland about ideal, or have you certain suggestions for its improvement?

Miss Rowell: For our situation we feel it is very nearly ideal.

Chairman Bailey: We are to have a report from Mrs. Hobson.

Mrs. Florence M. Hobson, Training Teacher of Hygiene, and Health Counselor, Fairmount Junior High School, East Cleveland, Ohio:

Ours is a junior high school, small compared to some of our others, with about 800 pupils.

About ten years ago Fairmount was started as an experimental school in junior high school work. I entered the school about nine years ago to make health a function of the school and to see how I could help the children. Of course we have been through the pioneer stage; we have made many mistakes and corrected them. We have no ideal program now but we are working on a course of study. The superintendent is interested, the principal is interested, and from now on improvements will,

I think, make it very efficient. Even now we think it is working very nicely. We have tried to keep it simple right through, but having no precedent we had to establish one. This is our procedure. The authority comes from the Board of Education. We have the Supervising Director of the Bureau of Physical Welfare, and we have an Assistant Director, supervising health education. That puts two people together in a rather interesting relationship. The latter is working with our committee on a course of health education, studying the school situation not only in Cleveland, but in our surrounding towns.

Under the supervising director of physical welfare, we have the dental service, the nursing service, and the service of the medical department. The principal is given full freedom in his own building to make his work function.

Under the principal, we have a hygiene teacher giving definite instruction in the 7B, 7A, and 8B grades. She helps to coördinate the work in the building and is chairman of the health committee, which is changed from year to year. We have varied it, but kept it small. Each year it is reappointed by the principal, and announced each fall. The health counselor, the hygiene teacher, is chairman of that committee. We meet sometimes once in two weeks, and sometimes once a week, depending on the work we are doing.

We have a home economics department, with three teachers, and they work very definitely with the health counselor. Their everyday contribution is excellent.

Chairman Bailey: What is the relation to the cafeteria?

Mrs. Hobson: At first we had our own cafeteria. The principal had his manager and we had a beautiful set-up. Then we changed, and although we use it educationally as much as possible, the menus are all made through the central office at the Board of Education and sent out, but have to be approved by the home economics department.

The physical education department works very harmoniously with us. We have many conferences. The social science department is constantly hunting for material to emphasize health, as is the general science department. The English department is very coöperative in projects, working out health books or

anything we may plan. Then we have the shops and the commercial department, each with a contribution. We call on the student council whenever we have a problem on which we wish help. All the departments contribute to the health program.

The classroom teacher and I work very closely on any problem that may come up. I plan coördinative activities. For instance, if a certain problem has been discovered by the health committee, then I ask the different people concerned with it if they would like to join a campaign, or suggest some procedure that might help.

Dr. Strang: I am interested in knowing how your work as counselor compares with Miss Rowell's work as health coördinator. Do you have very much the same duties as she reported, only in addition do you have more direct contact with the pupils through teaching and through individual conferences?

Mrs. Hobson: We have not tried to keep statistics.

Chairman Bailey: Dr. Strang has brought out a significant point, that your contact with the pupils is direct and that of Miss Rowell is through other agencies.

Dr. Strang: Do I understand also that Mrs. Hobson actually teaches classes in high school?

Mrs. Hobson: I have twenty-five classes a week. As I am relieved of homeroom and study hall duties, I devote this time to the work I have described.

Miss Hulsizer: Am I right in thinking the work in the school you are reporting on in Cleveland, is taught as hygiene? In Oakland, it is not taught as hygiene.

Mrs. Hobson: It is taught definitely as hygiene, and then all of these departments emphasize health in their own work.

Chairman Bailey: Is the personal conference with the individual pupil as to his health problem a function which the school should arrange for?

Dr. Strang: It may be of interest to know who performs it in the city high schools, there being 172 in New York State. I have made a study of that recently in 100 high schools. The dean performs the function of interviewing girls who come

voluntarily with health problems in 16 schools; the dean in coöperation with the nurse in 14; with the physical education department in 15; with both nurse and physical education department in 9; with the doctor in 4; with the homeroom teachers in 10.

Chairman Bailey: Do you find any records in which physicians perform that duty?

Dr. Strang: There were a few in which the nursing alone, in which the teaching alone, and in which the physicians alone performed that duty. However, in the majority of cases it was the nurse and the physical education teacher and the dean of girls, either separately or all of them, to whom the girls went or were referred for personal advisement.

Dr. Don W. Gudakunst, Director, School Health Service, City Department of Health, Detroit, Michigan:

Is this advice a matter of service or of policy? How can these people who are school teachers, women who are more or less trained in hygiene, not in medicine, not in nursing, advise others about personal health?

Dr. Strang: I think chiefly in this way: the solution of health problems is not merely a matter of medical knowledge, there are other factors involved. There are factors of the community facilities for special treatment, of the social and economic condition of the family, of the daily habits of pupils, and a number of factors that the teacher and the dean can obtain information on and perhaps make connections with home and with the community to some extent, supplementing the work of specialists. In these 100 cases the nurse was more frequently employed in the smaller schools than the larger schools. In the larger schools, the physical education department handled this phase of the work.

There appears to have been a tendency toward saving the time of a physician by using other people for certain parts of the medical inspection work.

Dr. Gudakunst: I think that trend should be emphasized.

Dr. Strang: The part the dean plays in the personal advice regarding health seems to depend on a number of factors; for

instance, upon her own training, experience, and interest, and upon the expert service available when there is a health education person, or a doctor or a nurse, and upon the interest and ability of various teachers in the school system, and upon the time at her disposal.

There are a number of things that determine in these schools who shall take over this duty of the personal advisement of pupils.

"We have had reported," said Chairman Bailey, "an organization in Oakland in which the Board of Education controls completely the school health service of the city. In Cleveland, the control, I understand, is directly through the Board of Education, but in the administrative structure, the physician is responsible to the supervising director of the Bureau of Physical Welfare. In Detroit, the system of which we will now hear is quite a different story. Dr. Gudakunst is the gentleman who ties the Board of Health and the Board of Education together. Will you tell us about it?"

Dr. Gudakunst: In the main, all medical and all nursing persons, the entire personnel of the nursing and medical organiation work under the Board of Health, are paid by and supervised by that organization. All teachers and supervisors of teachers, all psychologists, all that have to do with the intelligence advancement of the pupil, are paid for and work under the supervision of the Board of Education. Under our Board of Health we have our various divisions, all of which have to do with the health of the school child, our venereal disease, our infant welfare, with its carry-over records from the preschool age, into the school system. Although a comparatively small number, these go with the child to school, to the school teacher, and again in turn to my office. It is, however, not universal, but we are extending that program more and more. The records from the infant welfare department are sent in bulk over to my office, and it is one of my jobs to pick out a given boy and put him in the school where he belongs.

Our communicable disease work, all of which is under the Board of Health, maintains a staff of nurses, diagnosticians, and medical men, working on a part-time basis. They work in and for the schools in the control of communicable diseases.

They are not school nurses, they are not school doctors; they are communicable disease workers, serving the city as a whole, but have as the major portion of their activity the school population.

Again, our sanitary engineering divisions supervise and direct the sanitation of the school through their department. For instance, plans for swimming pools must go through the sanitary engineering office.

Health Service in the Schools

We have a dental division directly responsible to the Board of Health, serving the city as a whole, but largely school children. Our superintendent of nurses with her various bureaus, with her various supervisors of various divisions, has charge of our school nurses. We have set up in rank equal to the director of the various medical divisions, a superintendent of nurses. She has charge of the supervisor of nurses, who is doubly responsible both to the superintendent of nurses and to the director of what we term school health service. Our school health service comprises nursing, medical examinations, done by part-time physicians always, the conduct of nutrition classes, and our list of medical specialists, which I will bring out again in a moment.

We have an interesting division of research and organization. Whenever we want to try out something experimentally in the school, we ask these chaps to measure it, to weigh it, to define its yardstick. That is a new department which we admittedly have not yet learned to utilize to its fullest extent, but which we think has great possibilities.

We have an attendance department which works through and with our department of so-called "Special Investigation," which is a police organization. Many of the problems of the attendance department are brought into court, not as truancy cases. Many times we find with the truancy cases there is actually a physical or social defect in back of them which should be remedied through court action. Those court actions are brought up by this department of special investigation of the Board of Health, which has legal and police power.

The Placing of Responsibilities

We have our supervisor, our director of physical and health education, working through some 600 teachers and workers. My job is in school health, but I have only a moral responsibility to the Board of Education. The director of physical and health education has only a moral responsibility to the Board of Health. It is not financial or legal. We have a direct responsibility one to the other in that we are liaison officers. Part of my title is the officer working with the Board of Education. Part of the other man's title is, the officer working with the Board of Health.

The real secret of this thing is this connecting link. We have at regular weekly meetings opportunity to bring up all of the problems. When a principal of a school has a problem which has to do with the health of the child, he does not go to his medical supervisor or to the school superintendent or to the board, and then have it come around indirectly to me. It comes to one man who takes it up with me. When the sanitary engineer has a problem which has to do with the health of the children, he does not have to take it up through his supervisors in a roundabout way. Instead, he meets with us at our weekly meeting and we sit down and talk it over. Sometimes we have twenty and thirty people at these meetings at one time, various and sundry experts, and pseudo-experts in their field, advising the two of us what to do.

The supervisor of special education has to do with the handicapped children, such as the deaf, the hard-of-hearing, or the blind. My group of medical specialists, orthopedic surgeons, cardiologist, etc., are under my supervision, paid for by the Board of Health, but they work in these schools. They are directly responsible in the matter of pay and policy to me; they are directly responsible in the matter of conduct, organization, and routine, to the Board of Education and the principal of the particular school. This coöperation works without friction, without difficulty, and gets things done, utilizing everybody. I might say the department of recreation man is always with the other liaison officer and myself at our luncheon meeting.

Chairman Bailey: Mr. Altenberg will now tell us of the health program in one of the Detroit high schools.

Mr. West J. Altenberg, Director of Orthopedics, Northern High School, Detroit, Michigan:

You really have to start, as far as actual organization is concerned, with the principal. We have a principal who is very health-minded. The particular institution in which I am, has an enrollment of 3200 students, approximately 1400 of whom are boys. The entire school is developed as a whole along academic lines. For that reason alone the principal of the school is very skeptical about anything which might interfere with the regular routine of his administration.

As charted, the cafeteria, although it is carried on in the school, has absolutely no responsibility to the school itself. Diet lists and everything else are made out by a central administration which is under the Board of Education.

Directly under the principal are the grade rooms. These grade rooms are divided, as I have them, into groups of boys from A to F, F to L, and L to R. Each one of these grade rooms has a grade room principal. In that grade room principal's files you will find all of the psychological tests and data that have come from the elementary schools in the city. In addition to that, up to two years ago you would have found the health record from the elementary school, but since the name "Health Education" has been given the department, the health records have been transferred to the office of the health education director.

The Problem of Health Instruction

The Health Education Director, a title which corresponds to Physical Education Director, is directly responsible to the principal, and under the health education director there is a health education director for girls. She has, under her, the various health education instructors who carry out the physical education program. One of them is the director of orthopedics. Due to the fact that there is no school nurse, all girls who have problems of hygiene are referred to the director of

orthopedics for first-aid or any other problems coming up.

Under the health education director come, in the boys' department, the physical education instructors. With these various activities outlined you can readily see what a problem it is to carry on health instruction. My particular position is that of director of orthopedics for the boys. I am assistant coach of football and basketball and in addition, I have four classes in orthopedic work every day. You will say, "Where does your opportunity for health instruction come in?" Fortunately for me, my program does not begin until ten o'clock in the morning. That gives me two hours of my own time which I use for health counseling.

My health counseling consists of this: I have an agreement with each of the grade room principals whereby they send their problem cases to me. They decide what are problem cases, having before them the psychological tests and the elementary school records of the children, in each one of these grade rooms.

I formed in each one of these grade rooms a health council of boys who are interested in hygiene, health education, physical education, and medicine, and utilized them in my work in the office, for making my records.

This group of students came to my office only when I was working on an individual grade room.

We have at the beginning of the year our medical inspection by the department of health. I have made it a rule to have in my box in the morning at eight o'clock all of the cases that the grade principals think should be interviewed by me. As a general rule I only have from two to three cases in the morning referred directly from the grade room principal. Besides this I interviewed between September and the spring every boy in that school who was what we term a 2X case. The results of these interviews are sent back to the grade room principal.

In addition to this, I keep on my desk a book which I call a "sick excuse" book. Every boy in the school who wants to get out of school because he is sick must come down and sign that book and get a sick excuse from me which he returns to his grade room principal, in order to get a pass. In that way

I have a record of every boy who leaves school for sickness. My boys who are on the health council transcribe that information from the book on large yellow examination cards, every morning. So in going through that book I am able to locate quite frequently problem cases which I should otherwise be unable to find.

Mr. Eastwood: What happens when you are busy? Do you drop your class and take care of these pupils?

Mr. Altenberg: I have a boy on duty in my office all the time. He has the boy who is reporting sign the sick book, get a sick excuse, bring it down to me, and all I have to do is sign the excuse. I have made a practice of signing all requests for sick excuses. In that way I have a check-up. If I go through my book and find that John Brown, for instance, has received ten sick excuses in two weeks, I find out about that boy.

Mr. Eastwood: So all are legitimate from the point of view of excuse.

Chairman Bailey: Mr. Altenberg, not being a physician or a trained nurse, would not be in a position to make any other decision, would he? He merely acts as a recorder.

Mr. Altenberg: At the same time that boy, by signing that request for a sick excuse for a certain number of times, is going to show up possibly as a problem case.

Dr. Gudakunst: In some of the high schools in Detroit where we do have nurses in attendance, the nurse assumes the responsibility of saying whether or not this child should go home, be returned to class, or go to a rest room for an hour's rest before returning to classes.

Miss Perrin: What relation has the grade room principal to that?

Mr. Altenberg: The record is merely returned to him so he as an administrator may have a record of the fact that the child has left school. With the aid of this book, and from the grade room principals, I get cases which might be called "cases for medical reference." Fortunately, Dr. Gudakunst has in the last year inaugurated a service for our particular high school

through which we get a doctor twice a month, and I send him all of these cases.

Some Considerations of Health Service

"We discussed organization and had some interesting material presented but I think we made little progress toward showing how health service and health instruction work together," said Dr. Bailey, announcing the transition to a new subject. "We will have to leave the subject of organization and come back to it. We will now discuss in greater detail health service. Miss Birdseye has a project outside of the school, a description of which will be of especial interest to us because as school people we sometimes forget that there are other community agencies."

Miss Miriam Birdseye: Four-H Club work, in 1906 when it began, was part of the coöperative demonstration work undertaken to free the cotton raisers from the difficulties that came upon them when the boll-weevil started. The adult demonstrators of good methods, supervised by the county agents, inspired the boys in the states in which this demonstration work was done to think that they could do something of the kind too.

So boys were enrolled as demonstrators, became club members, and had a contest to see which boy, using scientific methods, could make the best record on a certain amount of ground. From this contest the idea of holding the boys in groups, working in competition and making an exhibit of the products that they raised, became fundamental to the Four-H Club plan.

Now, we have national headquarters in Washington as a part of the Coöperative Extension Service. Our personnel includes nutrition specialists, state leaders as a part of our State Extension Service, county workers, who may be either agricultural agents, home demonstration agents, special club agents, or men and women lay leaders from the community who are directed and supervised by the county workers.

With this background how can concrete health work be done? In our organization, we do not have physicians or nurses. We have had to say to physicians, "Here is a definite problem;

we need help." We have had remarkable medical assistance. The nutrition specialists too, have made a notable contribution.

Club members average about 250 to a county; we hope there will soon be more. They do not meet every day as they do in school. We may have perhaps a dozen contacts with them during the year, maybe less. How are we going to give them a piece of work that is interesting, concrete, and gripping enough so that they do not forget about it? We work in all kinds of small places without large school systems. What are we doing to supplement the work that is being done in schools?

Club members work on specific projects, some thing to grow or to make. Our problem is to work with the particular kind of activities in the particular type of subject matter with which they are already working. Every club member not only either makes or raises some product, but learns to judge that product, as a part of his or her training. Members follow scientific methods in order to produce products which come up to the standard, and they are required to tell what they did in order to get the final results. Every club member is expected to be a potential demonstrator of good methods to the community, whether it is in making clothing, selecting an appropriate wardrobe, getting proper shoes, or raising a dairy calf. He is required to make an exhibit of the work he does. He may enter a contest for a prize which may be a trip to the state college or to some interstate meet, giving him a wider educational opportunity. In addition, he will go to the county or state conference.

"Growth Work"

In order to make health work develop naturally from the situation I have outlined, we have said, "Good growth is health. Let's call this growth work, and have that as a slogan to show us our objective. You all want to exhibit what you have raised. You don't want to stand up beside a perfect animal and be imperfect yourself. Be your own best exhibit. You are demonstrating how to do things by scientific methods. Demonstrate with yourself. Grow a fine club member."

So we have taken these two quite concrete jobs: to be a good exhibit; to grow a fine club member.

We must get a picture of the child at his best into our minds, just as clearly as we get the picture of a fine animal. We know what a fine animal is, but most people do not know what a fine child is.

A health correlation is very easily made with the foods and nutrition work being done in the clubs. It should be much easier in connection with all the agricultural production work, because our boys are feeding animals milk, giving them roughage, seeing that they are housed under sanitary conditions, with plenty of good ventilation; and they are working, too, on selection of sound stock.

I am going to apologize a bit for speaking of our health contests—one of the devices which have helped to hold this work together; they are a motivating interest which influence children to join the clubs, to which they are not compelled to belong. Our club members learn from them to be good losers as well as good winners, that if you do not succeed at first you can try again, and that the interest and energy they put into working in a contest are not lost.

The contests for physical perfection start in the clubs. The contestants selected from the clubs go to the county contests; then to state contests. Then we have two or three very big interstate contests. There is one on the Pacific Coast, one at Chicago, and there is a Negro interstate contest which is held at Tuskegee.

No one can compete at Chicago or on the Pacific Coast who has not been a state health champion. No person can be a state health champion who has not come up through a county contest. So you see this contest work which started for most states at the top, at the Four-H Club Congress in Chicago, has worked back through the states into the individual work of the clubs.

As an example of these contests, I will describe the one held last year in South Carolina, where they had 5000 girl club members entered in the growth work. In these little communities, medical supervision is not always available. So the best contestants were selected according to a score developed by the home demonstration agents in coöperation with the State Board of Health. Those selected were sent to the county con-

test. There a very thorough medical examination was provided, and the best candidates were picked to go into district contests, then to their state contest, and finally the best was sent to Chicago.

The effect of working on this definite plan was quite tremendous. Every one of those 5000 girls had to learn how to feed and care for herself. A very large number of them had a physical examination during their preparation, and learned what corrections they should make. A great many corrections were made. In some cases hookworm clinics and many other specialized clinics were held as a result of these examinations.

This type of contest is valuable, but there is another type which we are working toward. We want to base a contest on the points the children themselves can control, and have two divisions in our health contest: one, improvement for the people who need improvement, and the other one for absolute perfection. To accomplish this we have felt we needed a health improvement blank.

Chairman Bailey: Have you any comments. We are airing our opinions and trying to correct each other. Have you anything to praise or disagree with in Miss Birdseye's program?

Dr. LeRoy A. Wilkes, Director, Division of Medical Service, American Child Health Association, New York:

I want to make this point in connection with the optimal child, a name to which I have always objected. If we insist upon having some special word like that, I would like to say "the optimal condition of each child," rather than try to picture a composite optimal child ideal, because no child can measure up to the ready-made picture of a composite optimal child.

I would like to make the point that each child should be encouraged to reach his best condition, because child health might compare to a mountain range, the lower limit of which is mere absence of disease, and I think each of us has a peak in this range which varies in height, and each of us should endeavor to reach his particular individual peak. If we take this average as the optimum, we try to raise some above their optimum, and we keep some who could go higher from reaching their highest peak.

Miss Birdseye: I think nutrition specialists have in mind not only what we have at present, but what we can have if we learn to control conditions, and to give that thing we start with the best chance to develop through proper environment, food, and other things. So I do not have in mind by this work only what these club boys and girls can be themselves, now, but I do have in mind what their children and the children of the next generation can be.

I do not know whether everyone has the vision the nutrition people have, but after all we do not work on a one-year or a five-year program, we work on a program of two generations or three generations from now. I do not think it is perfectly possible to set up in your mind the qualities which a child will have if he has everything he should have. We are working to get as near as possible to it, if not in this generation, in the next.

I agree with what Dr. Wilkes has to say, but I would like to carry it a step farther. We do not have to stop at this generation.

Dr. Wilkes: I do not think we have any disagreement there. I have no objection to the fifth generation having ten times the optimum of the first.

Chairman Bailey: There are a number of interesting features in Miss Birdseye's plan. The question is a large one. Most of us have experimented more or less with the contest. It is a device in the handling of which there is a good deal of dynamite. I presume some of us have had it explode under our efforts to use it. It would be very interesting to know the ways in which this service has safeguarded the use of contests. Of course, perhaps one of the main points is that no child is obliged to belong to a health club, a Four-H Club. I think we cannot remember too conscientiously that things may be done outside of schools which may not fittingly be done within schools.

Our next speaker is Miss Chayer, who is to present the work of the health service in Des Moines public schools from the nurse's viewpoint.

Miss Mary E. Chayer, Supervisor of Nurses, Department of Public Schools, Des Moines, Iowa:

I have to show my part in organization before I can talk of health service. I am giving you the health service of an entire city, not for one school. It applies to primary education as well as to secondary, because the same system holds true throughout the entire twelve grades. We have both a superintendent of education and a superintendent of schools. Then we have an administrative staff made up of all the school administrators, including the director of health and the supervisors of the four different bureaus under the director of health, —the bureaus of medical inspection, of nurses, of physical education, and of dentists. We have a little deviation from the normal in that the director of health education is the supervisor of nurses. The teaching of health education is done through the nurses, through the physical education teachers, and then through other teachers. That is the organization of the department.

I have listed first the medical inspection service. The pupils who are examined in the grade schools are examined for the last time in the sixth or fifth grade, and then their physical record card, which was made out at the time when they entered kindergarten, goes with them to the junior high school, so that we have a complete record which is continuous through the grades, unless the health record is lost, as occasionally happens.

In our junior and senior high school we have one man physician and one woman physician one day a week. We have one nurse for every 1500 pupils in the junior high school, and one for every 3000 pupils in the senior high school. The nurse in the junior high school does the teaching of home nursing and child care, and first-aid. As far as the health service is concerned, the junior and senior high schools are alike.

The pupils are examined every third year by the physician, and in the intervening years they are inspected by the nurse and by the teachers of physical education. However, any time a child needs a special examination within the three-year period, a special examination can be made. For instance, any

child who seems not to be making a normal gain in weight is eligible for nutrition classes and is examined every year by the school physician.

An attempt is made to make the health examination educational. We try to prepare the parent and the child for this health examination, and make it a test of physical fitness rather than just something through which the children are put. We examine about twenty children in two hours; that is, the school physician examines twenty children within two hours, but the hearing test, the eye test, weight and measurement, and the check-up on the health habits of the child are all accomplished previously. We attempt to have parents present at the examination and we slow up the examination at any time so the doctor will be able to spend more time with the parent.

Miss Stella O. Kline, Director, Child Health Education, Hartford Tuberculosis and Public Health Society, Hartford, Connecticut:

May I ask if you have to have the parents' consent?

Miss Chayer: We have what we call a negative consent. We send a notification to the parents of the date on which the examination is to be held, and if we do not have any objection from the parents it is assumed they have none, and we make the examination. We occasionally have parents who refuse examination, and we just mark on the file card that the examination has been refused. We have almost no refusals at the present time.

Mr. Eastwood: Are the children examined with clothes on?

Miss Chayer: The children are stripped to the waist, the shoes and stockings removed. All of the corrective work, and the classification in physical education, is based on the medical examination. We are changing our forms and we are having more parents present. When they see the examination and know what it is, they themselves become more interested.

Chairman Bailey: What percentage of your examinations are attended by parents?

Miss Chayer: For the grade schools we had 50 per cent last year, but we did not have as many in junior and senior high schools.

Miss Hulsizer: Who in the school helps to interest the parents in attending the examinations?

Miss Chayer: That is done through our health council, which consists of all of the members of the physical education department, the dental, the nursing, and the medical service. It is done also by the homeroom teachers, all of the other teachers, and the dean. We have a health council of about ten members in the junior and senior high schools. We have eight of them among our ten high schools. We also have a very close association with the parent-teacher association. It is not represented in the health council directly, but the proceedings of the health council go to the parent-teacher association. Every school building has a health committee in its parent-teacher association.

Dr. Ruth Andrus, Director, Child Development and Parental Education, University of the State of New York, Albany, New York:

In the case of the 50 per cent of the parents that come for instruction, are any of them returns, or are they all first attendants?

Miss Chayer: Some of them are returns, but they are largely first attendants. The parent who is interested enough to come in the kindergarten period will come again in the third grade. Usually they drop off in the sixth grade, and again in the ninth. We do have a great many coming back, and we must also have a great many new ones, because each year our percentage is going up.

Dr. Raymond Franzen, Director of Research, School Health Study, American Child Health Association, New York:

Do you have more parents in some of the districts than you do in others?

Miss Chayer: Yes, but it seems to be the interest of the particular school in getting the parents present, rather than any economic condition.

Miss E. S. Bergstrand, Health Teaching Supervisor, High School, Freeport, Long Island, New York:

Is your health service so organized that a mother with three children in school in different grades, could have them examined on the same day?

Miss Chayer: If she said she had three children and wanted them examined at the same time, we would do it. Ordinarily, however, we do it by grades.

Chairman Bailey: May I ask if education or interpretation of the recommendations from this examination is done through your school nurses?

Miss Chayer: It is done through the school nurses and through members of the physical education department. They, as well as the parent, are always present. The physician talks with the mother if she is there, and then the physical education teacher talks about the posture of the child and what the parent can do in the home to supplement the work of the teacher. Then the nurse urges again what the doctor has urged in the matter of correction of defects or habit-formation. That makes for a slow examination. Sometimes we have only ten in the two hours, if we have ten parents present. Sixteen in two hours is the maximum.

Dr. Gudakunst: Do you arrange your work so that a single child and his parent is with the doctor and the health education director or teacher, or do you have a number of children in one room?

Miss Chayer: The mother, the physician, and the child are alone with a screen around them. The line-up of children is in another room. In that way we save time and still the child is being examined alone.

Dr. Gudakunst: How many children are allotted each physician?

Miss Chayer: We have four physicians for our entire city, a school system of 30,000 children. We have two physicians who give their attention to the ten high schools, junior and senior high schools, with an enrollment of probably 12,000. They give just the two hours a day. That is why we feel it is better to have one examination once in three years, and have it followed up in the time between by the nurse, than have the doctor come in and make a rapid examination every year.

Perhaps I might go on to say that we help the new physicians to get the school viewpoint. The school physicians examine these children, and classify them on the basis of their examination for their physical education work. Naturally, no matter how good a physician may be he has to know our system.

We have what we call a standardization clinic. All our physicians on the same day go to a high school. We pick out five problem boys in the matter of health. Each one of the physicians examines each one of these five boys himself, and then after the examination is done the boys are sent back to their rooms and the physical education teacher, the nurse, the principal of the school, the whole health council, get together. The physicians go over the examination and if they have not agreed on different points they talk the matter over. The nurse will give them something of the home background of the child, the physical education teacher can give them something of the background of the child's relationship to physical education work. Together they decide what is the best thing to be done for these problem cases.

It was as an outgrowth of this standardization clinic that we organized the health council. The principals saw we were really trying to meet the individual needs of the child and wanted more. We still run our standardization clinics, but we also have a health council to take care of any problem child. The health council meets once each month.

Miss Rowell: What are the recommendations that the physicians make besides physical education recommendations?

Miss Chayer: The usual recommendations you would find with regard to the condition of the child; ability to take physical education is only one item. Others include the condi-

tion of eyes, hearing, tonsils, teeth, and any general defects. Then they always question the child and talk with the parent as to the child's health habits. If the school physician feels the child needs further medical attention, he advises that the child be taken to his family physician, or to his dentist. The physician makes, also, recommendations to the school: for instance, whether the child should be put in the nutrition class or the rest period. A great deal is done in the matter of looking after the school program of the child, lessening some of his work, giving him perhaps no outside work, and perhaps stopping some of his classes.

Dr. Andrus: Do you make personality studies in connection with cases of malnutrition?

Miss Chayer: We have nothing of that kind directly in the schools. We make personality studies with relation to any problem child. If we find a child who needs special attention, we refer him to the clinic for psychological research, which is not in the schools. We have no mental hygiene specialist in the schools.

Mr. Eastwood: Is any instruction in mental hygiene given the students?

Miss Chayer: We try to make our entire health program a mental hygiene program. We do not label anything mental hygiene, but we do talk about and study the healthy personality as a part of our health education program.

Miss Mary E. Murphy, Director, Elizabeth McCormick Memorial Fund, Chicago, Illinois:

I should like to know what your criteria are for judging personality? Are you able to use as authentic the judgments of the classroom teachers?

Miss Chayer: The classroom teacher refers all cases to us.

Miss Murphy: So you would not get any that did not stand out in the classroom teacher's mind?

Miss Chayer: No.

Dr. Franzen: Are those the departmentalized teachers, and does this handicap any reports to you?

Miss Chayer: I used to think it did. Having worked for years now under a completely departmentalized program we seem to be able to adjust it. There are some good and some poor points in a departmentalized program. On the whole, I think we do just as well. It makes a little more work for us as we have to find out where our children are during the day. I think perhaps in the matter of studying the personality it is a help rather than a hindrance.

There is a good deal of question in the minds of a number of people as to the matter of the daily morning inspection in the junior high school. I feel personally that the adolescent child is having a difficult time to adjust himself. It is known that in adolescence children are not so susceptible to communicable disease, so we make our morning inspection in junior high schools an incidental rather than a formal matter. We may make a very formal thing of it for a very short time in case of an epidemic but, other than that, our morning inspection in junior high school is so incidental that the child does not know it is going on.

The children are being sent to the nurse whenever it is necessary. Every child who is absent because of illness must come to the nurse for readmission before he can be entered in his regular class.

Dr. Gudakunst: What length of time do you set on that absence before the nurse must investigate? Does she investigate every child whether it is absent a half day or longer?

Miss Chayer: She readmits every child who comes back to school after illness. If a child is sent home because he is ill, he must see the nurse before he can be readmitted to the classroom. This takes a great deal of time, so we are going to change this year and have every child go to his homeroom teacher first.

Dr. Wilkes: What does the morning inspection include?

Miss Chayer: Only the communicable disease control. We feel that health-habit formation is not a legitimate part of the morning inspection. It is a health education project and not a project which should take the morning inspection time.

Chairman Bailey: Does the nurse make that inspection?

Miss Chayer: No, the teacher makes that inspection and sends to the nurse anyone she thinks needs attention.

Chairman Bailey: You are putting the responsibility of the communicable disease control on the classroom teacher?

Miss Chayer: Yes.

Chairman Bailey: It is well to have that squarely before us.

Miss Hulsizer: Does the teacher keep any record of the cause of absence?

Miss Chayer: Yes, we have a sheet and every child's name is entered on the sheet with the cause of absence on it. I am making a study right now.

Chairman Bailey: These many questions indicate the interest that this group feels in your presentation. Dr. Gudakunst will now speak to us further.

Dr. Gudakunst: We always try to keep in mind that our service as an organization is not a corrective, remedial thing; it is rather an educational, directive measure steering the individual child into the proper channels whereby he can receive medical care and advice, as indicated, for his particular condition. With that in mind we have set up in Detroit a dual service under the Board of Education supervision and under the Department of Health supervision.

The physical examination of children is done annually for various groups: First, for all entering children, which of course means largely those who are in the first grade. Second, we pick out an arbitrary group of individuals who are 15 per cent or more underweight. The third group is comprised of children who have been selected for us by the Board of Education through the teaching staff. This applies largely to the elementary schools.

Our school teachers have been trained during the past eight years in the matter of inspecting children for physical defects. They inspect children for defects of teeth, tonsils, thyroid, skin, evidence of anemia, defects of posture, evidences as manifested from mouth breathing, adenoids, those things which are discernible on a casual inspection.

The children thought by the teacher to have defects are classified, in our language, as a special group. They are referred to our examining physicians for a medical examination. No responsibility is placed upon the teacher in regard to making a diagnosis or recommending treatment. She most carefully refrains from that. She merely looks over the children so as to pick out those who appear to need the services of a physician.

Examination by Specialists

Our examining physicians work under the Board of Health, and they work rapidly. They work in groups of three as specialists, each man having a particular task assigned to him, one man doing nose and throat work, another vision and hearing work, another man doing heart and lung work. They are all part-time physicians, practicing for themselves the rest of the day. They examine 125 to 140 children in a two-hour period. Each physician is assisted by a nurse or a clerk and has absolutely no clerical work or history to do. His examination is comparatively accurate. It agrees with that of the private physician as closely as will any two private physicians' examinations of the same individual. I base that statement upon observation and not careful correlation of actual data.

The school physicians, after they have picked out the children with defects, do not return to that school for another year. They are not giving service, nor are they taking care of patients. The defects uncovered by our school physicians are followed up by our actual field nurses who have about 2800 children per nurse. These nurses have contact with three groups of people—the parents, the teachers, and the children themselves—under a specialized nursing plan by which they do nothing but school work.

Those children with special defects apt to handicap them in their educational progress, such as uncorrectable defects of vision, orthopedic defects which are structural, deafness, and so forth, are referred to a group of specialists.

Let me illustrate. If we have a child who has a vision that

cannot be brought up better than 20:70 by glasses, we say he is a candidate for one of our sight conservation classes. We have nothing to gain by examining the child until after the specialist has inspected the record. All the child's records, including scholastic records, are sent to the ophthalmologist's office. If necessary he will call the child to his office, and examine him himself, regardless of financial or social status, because it is a question of education and placement of the child in the school.

The deaf children, or the very hard-of-hearing, are automatically referred to a special clinic conducted in a special school called the Day School for Deaf, where they are examined by: First, a psychiatrist, who gives a psychometric examination; second, a school principal, who reviews their scholastic record; and third, the aurist, the medical man. The examination there is quite elaborate with all the electrical and mechanical appliances available.

If the child is able to conduct himself in regular class work and obtain from regular class work the maximum benefits, he is returned to his class. If, however, there is anything to be offered to him from or by this Day School for Deaf, he is admitted to that school as a student.

In practically all the large schools throughout the entire city we conduct lip-reading classes for those children who seem to have a progressive condition that may eventually, in later life, lead to complete deafness. We attempt to anticipate difficulty and teach them to lip-read while they still have hearing. It is a much easier problem at that stage than it is to wait until they are practically deaf.

We have also conservation of vision classes as well as other classes for the blind.

We have another group that comes under a general heading. We have a rather naïve term which we apply to it. We call it for some unknown reason, the "School for Anemic." In that school we put the tuberculosis exposures, the cardiac cases, severe cases of malnutrition, and occasionally an anemic

person. Those children are under more constant medical supervision. A physician visits them every two weeks for a complete physical examination. Accurate records are kept of their physical status and progress.

Chairman Bailey: You say you "put" the children in the School for Anemic. Is there any objection on the part of parents?

Dr. Gudakunst: We give these children transportation, breakfast, lunch, a place to go to bed, toothbrushes, toothpaste; in fact, they receive the maximum you can give in a physical way to any group of people. The parents are very anxious to have their children placed in that school. Our problem is not to get children to go, but to keep children out. Occasionally we have difficulty in getting children in who really need to go, but from a different source. The medical end of this organization being under the Board of Health, we have supervision over not only the public schools but also the parochial schools, and we transfer freely from all parochial schools to our special schools those children who need it. Occasionally a parent is not desirous of having the child leave the parochial school and go to a public school. We never insist unless it is a matter of extreme importance and emergency.

We have on our staff a specialist called the "cardiologist." We feel that before we tell a child of secondary school age, or his parents, or his school, that he has heart trouble, we should be mighty sure of it. So now, before any notice is sent to the school, to the parent, to the child, of a heart condition, following our general examination of children, a cardiologist examines that child very carefully.

The Report to the Family Physician

I might say in all of these special defect cases we make it a point now to write to the families urging them to take these children to their own doctors. We, at the same time, write to the physicians in all of these special cases, giving them the findings of our specialist, and they appreciate it.

You have heard some of the tasks of the so-called health

education directors and teachers who have to do with both health education and physical education in our schools. The intimate association in Detroit of the directors of the two activities, and also the duties of the field workers, link this medical service to the health education work. Our physical examination records in the secondary schools are turned over to the health education or physical education staff, it being the same thing.

We have one thing that I believe is worth mentioning in our control of communicable disease. I spoke of examining physicians who did not go back into the school again until another year. A different group of physicians will visit the school for immunization,—in the secondary schools of course limited to vaccination. They visit those schools once a year for the purpose of vaccinating children. We have no compulsory law excepting that whenever we do have a case of smallpox in a school we declare everybody exposed and vaccinate everybody. In one school this year we had one case of smallpox, and we found that 95 per cent of a high school of 3200 were vaccinated satisfactorily, which is typical of the school population.

In our elementary schools a still different group of physicians, besides those who vaccinate, will come back again to give toxin-antitoxin, or Schick tests.

The Dental Program Separate

Our dental corrective program and dental inspection program are entirely separate from the nursing and medical service. In our secondary schools not much has been done in dental inspection or dental corrective work. In four or five of our so-called intermediate schools, or junior high schools, we do have dental clinics for the purpose of correcting defects. In practically all intermediate schools we have dental inspection of all the children by dentists, in addition to the dental inspection by the physicians. We have worked out a system, and are putting it into use now, to care for the part-pay dental case.

I would like to say one word about the psychological test-

ing. All children are tested under group intelligence tests every three years throughout the entire system.

In our elementary schools, incoming teachers are given special work in health education, and in this matter of physical inspection of children for physical defects.

Miss Beatrice Short, Assistant Director, National Organization for Public Health Nursing, New York:

I would like to know whether or not you have any plan by which you try to have the child who has had the very rapid examination by the physician, build up a desirable attitude toward it. I was thinking of the attitude that we want in children.

Dr. Gudakunst: We do not build up a desire for actual medical attendance, but we do overcome the fear of a doctor which does exist in a great many child and adult minds. As far as the child is concerned, there is no fuss, no excitement. We have three men working two hours doing 140 children. That is almost two minutes for a child.

Miss Bond: I have just completed a survey of a certain high school. We wanted to get an opinion from the high school students as to the health supervision, so we asked them to express on paper what they considered the outstanding health needs of their school. Twenty-one per cent answered, "We want more than the two minutes which are accorded us," or something similar. That is what I believe Miss Short means.

Dr. Gudakunst: I maintain it is not our position to give that. We should not attempt to place ourselves in the position of being family physicians to these children. It is our duty to sort out those who are in need of medical attention, and to do that only, and when we spend ten, fifteen, twenty minutes, or a half hour with each child, then we are usurping a position that rightfully belongs to the attending family physician, who can do it better, and only he can do it. This school physician, no matter how much time he spends with a particular child, cannot act as medical health director for any child in that school.

In the matter of vision and hearing, he examines only those

children whom the teacher found to have a defect. He does not see the others, but the school teacher can use the Snellen chart, the spoken or word test, as well as the doctor.

If you listen to ten or fifteen heartbeats you can tell whether or not that heart is abnormal. You cannot say what the abnormality is but you can tell that the heart needs further attention. That is the sole function of the school examining physician. He is not supposed to give an entire medical examination.

Chairman Bailey: There is certainly more of a function for the school health service than just finding the children that ought to go to the doctor. There is the problem of adjusting the school environment to the children. We need medical intelligence to do it.

Dr. Gudakunst: We do. We need the medical intelligence supplied by the attending physician for that particular family, not by the school. If he does not tell us what he thinks, the nurse sees the child, the parent, and the doctor, and we get it. It means a lot of field work, but we get it.

Chairman Bailey: The health examination of children is the business of the medical profession of the community, not of the school health service. Is that your statement?

Dr. Gudakunst: With a modification: that we assume the responsibility of saying which of these children are most urgently in need of health examination. When we can educate the public to go to their physicians, then we will have talked ourselves out of a job. We are doing all in our power to have all of the school children go each year to their own doctors. When they do, the doctor's findings are reported on the school card and that child is not examined in school by my doctors.

Dr. Franzen: Do you ever run the same two or three children between two school physicians? If so, how much agreement do you get?

Dr. Gudakunst: I cannot give it to you in numbers. However, there is very high agreement. When we start out each year, the first thing we do is take our group of doctors and have them examine the same group of children on the same

day in different rooms. The same child goes down with a big record sheet which is not presented to the physician. We rush him so he does not have time to consult the record.

Chairman Bailey: We have never yet accounted sufficiently for the skill which men may get who see large numbers of children under such circumstances. They come to do what looks utterly impossible. I think we have had some experience in other cities which indicates that to be true. I am not voting for a minute and a half examination, but you have to take that into account.

Dr. Wilkes: I would like to bring up one or two points. In a legal case there is a lawyer for the defendant and a lawyer for the plaintiff, each with his peculiar interest. It seems to me the school physician's primary interest is to make the scholars teachable. It is the function of the private physician to bring that child's interest up to the highest point. I doubt if we can justify the expenditure of funds for medical service in the schools beyond making the child teachable. There are lots of potential threats concerning which very different opinions can be held by equally competent men, and I question whether we can go past the family physician who says, "This child's so-called potential threat is not giving any evidence now, and I would prefer to wait." I think we would lose a lot of the nurse's follow-up time in urging her to visit the home constantly and follow up those debatable points, rather than concentrate on those we can justify.

Chairman Bailey: Would you agree on the statement that the secondary school is called on to make decisions concerning children, and needs medical advice to make these decisions sound? The whole program of competitive athletics, for instance, is one.

Dr. H. H. Mitchell, Medical Director, School Health Study, American Child Health Association, New York:

That problem should be presented with a great many qualifications. If a child has an obvious defect, you have got to get a decision as to whether he should continue with the same kind of program he has been carrying, or discontinue it. On

that kind of problem, we could agree, it would be proper he should have medical advice.

Chairman Bailey: Then we may agree on that? And whether the school wants to get that advice by a routine medical inspection of all children, or get it in some other way, we would not care to go on record as stating. Personally, I should feel thoroughly satisfied if you would agree to the main contention that the secondary schools need medical counsel in making decisions which are primarily their own business. You may get that counsel any way your community will hand it to you, and you will probably find as many ways as there are communities.

Miss Sherman: I should like to add that I think we might all agree that the trend would be to have more and more scientific and better advice from the medical profession.

Dr. Andrus: Our points of difference are perhaps just as instructive as the points of our future agreements. Do we not perhaps blur many of our points for further research in fact-finding by trying to reach agreements which are so generally one-sided, if they are not discriminating?

Chairman Bailey: That is a very good suggestion. Would anybody like to register some group differences? I am not at all anxious for us to agree on everything. What are some of the other significant points on which we should like further light?

Dr. Mitchell: I would like to raise the question that Miss Short mentioned before, the objective of attitudes in regard to health examinations: If we should consider very thoroughly not only whether that should be one of the primary objectives of the high school program, but also just how we should approach that.

Chairman Bailey: That comes primarily under the topic of health instruction, does it not?

Dr. Mitchell: I think of it as accomplished through the examination.

Chairman Bailey: Then your examination becomes a means of educating the child. I think it is very wise to recognize the

educational function of that examination. Should there be provision for mental health service in a secondary school?

Dr. Mitchell: We had considerable agreement in the Teacher-Training Section on that point. It was along the line of Dr. Crothers' idea that we should not try to have specialists, but we must have general practitioners.

In regard to mental health, we need someone who is a general counselor, and this was spoken of in relation to the teacher-training, but it seems to me it could apply in the secondary schools. Some person should be appointed as counselor on social, health, and mental hygiene problems, who is a wise counselor and would bring in the specialist when he is needed.

Dr. Andrus: In connection with health service, would there be a mental health provision? I dislike to use the word "psychiatric." I mean an examination of the individual as part of any health examination. Then if there are any abnormalities discovered, would it be referred to the special service? I am not thinking of counselor service. Can we agree, or do we agree that some provision for mental health should be part of every secondary school health program?

I have yet to see the school health program which, by reason of its being a health program, includes mental health as one of its functions, or the responsibility for mental health. I do not mean service to make people healthy mentally. We are trying to make people healthy mentally in our school health service. I am asking if we can in any secondary school help set up mental health as one of the parts of the health program.

Health Duties of the Secondary Schools

"We have placed in your hands," said Chairman Bailey, "two sets of questions on presentations given. The first is on organization, the second on health service. Let us take the question: What are the duties to be performed with regard to the health of pupils in secondary schools?"

Dr. Strang: There seem to be four duties. One is the discovery of health needs, including the sifting out of pupils by the medical service, or referring them further to their own family

physicians, or to clinics. The second one is the personal advisement of pupils. After their needs are discovered then they are given certain advice. It may be simply advice to consult their family physicians, it may be making connection between the pupil and a clinic that could help treat his particular difficulty. Another duty is the group instruction, and the question was raised whether it should be in a separate period, or correlated. In one case, in Oakland, we found it was correlated with other subjects, and in Des Moines it was treated by a separate hygiene teacher.

Another duty is the control of the sanitary aspects of the school building. Those were the four main duties mentioned, and each of those could be further analyzed into performance items.

Chairman Bailey: Is there any discussion on that summary?

Miss Rowell: I think we ought to add to it the discovery of the health status of pupils with a view to adjusting the school situation for them.

It seemed to be the concensus of opinion that medical advice was needed with regard to the placement of pupils, but the difference arose in the opinions as to where the medical advice should be obtained, whether from a school physician or a private physician.

Chairman Bailey: The second question is: Who are the best people to perform these duties under present conditions and in ideal situations?

Miss Bond: I feel that we are left much in the air as to the type of examination or inspection that should be given to the students, and I think that this is an important question. I think we ought to go into detail as to a very splendid health examination, when it is given with adequate time. I know from experience the students do not respect a short, sketchy examination.

Dr. Strang: That is a point suggesting that a competent physician is needed to perform the first duty. It seems to be the case that where there is a school doctor, he performs that particular duty. Where there is no doctor, the nurse does it.

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Where there is no nurse, the teachers, or anybody who happens to have any inclination or ability tries to do something about it.

Miss Murphy: Is not an adequate medical service connected with the educational phase of the health service more than just serving individual health needs of the student? It is a part of the educational program relating to health. The adequate medical examination surely must be a great factor in building up an attitude on the part of this individual boy or girl toward what a good examination really is. Of course, this is the time when that individual is assuming responsibility for himself, and it is not very far away from the time when he is out in the professional or business world where he himself will be responsible.

It seems to me that the kind of examination he gets or she gets in connection with an active program in the school, might be a very big factor in achieving that goal we are all working for, responsibility for personal health.

Miss Knowlton: It may possibly be that we have helped to work out a satisfactory solution of this problem. In our system once in two years we follow a course of selecting certain groups for more thorough physical examination than that which we call the routine examination. On alternating years every pupil is examined by the school physician who is on our regular staff, and who is in the school practically each half day during the school year, not only serving the high school, but also children coming from other schools.

Whether or not it has been necessary for a student to have the thorough physical examination during his senior high school course, he is offered the chance for a thorough physical examination by the school physician the last semester before he graduates from senior high school.

He is then given a health certificate which he frequently uses in entrance to some college, or normal school.

I do not mean to say that the children have not been examined before this time. They have been examined and probably they have had this more thorough physical examination in senior high school, and certainly they have had it in ele-

mentary school or in junior high school, but if a student had not had an examination during his senior year in high school he would have an opportunity for it then. Regularly it would come several times during his school career, continuing up to his senior high school.

Miss Murphy: I think it comes down to what the function of the health service is. Is it merely a service to find correctable defects and to see that they are taken care of, or is there another function as well? If there is, and I believe there should be, we could perhaps give some of the same educational tests that we apply to other things we are doing in connection with our health program. Certainly the matter of attitudes is one thing that we want to achieve. If that is true, then I am sure even though a very large percentage of children were found in a very good condition, there would be educational value in having a health examination, if it is properly done. I believe there is a dual purpose in health service, and that the latter one should be tested by certain of the educational criteria that we apply to other phases of our program.

Miss Reynolds: I was talking just a short while ago with a pediatrician on the subject of health examination for high school students, and he expressed the opinion that physicians are not thinking along the lines of the kind of a health examination that is needed to take into account the definite mental needs of children of this age.

Miss Grace Moses, Supervisor, Physical Education, Public Schools, West Orange, New Jersey:

We have a superficial health examination in all of our schools in West Orange, and of course the physical education department feels it is wrong. I wonder if you have had the same experience we have had with the high school girls. After they are ushered through at the rate of twenty a minute, or something of that sort, they come back to our physical director and discuss it. They ask for further information, and as far as possible with our limited means we tell them what they can do. We have seen the most tremendous response in increased self-respect, in some cases a very definite change in the girl's whole attitude.

Chairman Bailey: Is there any further experience in the field of health examinations?

Mr. Altenberg: In my experience with boys, I fail to see that there is any different psychological viewpoint when they come back from the thorough examination than there is when they come through from the regular examination.

I question very much a justification of inaugurating in the high school a system of physical examination which is a drain on the educational budget. In my estimation our objective is to educate the high school student to go to the family doctor, because it is time for him to begin to realize responsibility.

Dr. Strang: I think it depends so much on the community. In a certain community where there is a good type of family physician, you can refer to the family physician. In other communities where the family physicians are few in number, and of poor quality, then I think the school is obligated to a further extent to assume responsibility.

Miss Perrin: What about community clinics?

Dr. Strang: They should be used to a great extent because that is a service the pupil should be informed of.

Chairman Bailey: I would like to suggest there that we have a problem which is not primarily our problem, but as soon as we attempt a high school health program we run into it. That is the problem of community medicine versus private practice. We must throw the responsibility back on the community agencies, who must supply us the help, but we are not excused from stating our conviction of the need.

Shall we go on to our next problem of materials, or is there anything further you wish to add on the health organization?

Dr. Anita D. Laton, Director, Science Department, University High School, Oakland, California:

It seems to me that list of objectives carries with it some statement as to what personnel is necessary to carry them out. We have decided that for the discovery of health needs we need some medical advice, no matter where we get it. The group instruction in health obviously belongs to the teaching staff. For the control of sanitary aspects, there is the administra-

tive staff and the custodian, and within the room, the teachers. For the adjustment of the school program to the needs of the pupils, obviously again it is administration. It is the administrators who need to be interested in this matter, as it is their job.

For the personal advisement of pupils, we came to no conclusion; that is one of the cases in which there is a question as to what personnel is required. From the programs presented it seems there should be some person or group of persons whose job it is to coördinate and correlate everything in the school directed toward these health objectives.

Chairman Bailey: Our next topic is concerned with the curriculum and health instruction. Health education may be carried on through physicians in their personal conferences with students, or with teachers. It may be carried on through regular classroom instruction, or through personal conferences of teachers with pupils, or through the work of nurses, or through physical educators distinct from a classroom teacher.

Dr. J. Mace Andress, Editor, Health and the School, "Hygeia," Newtonville, Massachusetts:

There is rather an interesting situation in the high school from the point of view of instruction, with regard to the difference in the subject matter presented to those who are going to college, and those who do not go to college. Frequently it happens in a great many high schools that those who are going to college do not have the opportunity to have any special course in hygiene in the high school. Not only that, but in a great many cases they cannot take, or do not take, courses in science such as biology, chemistry, home economics, or other subjects which are giving an insight into health problems to laymen in the community.

It would be a very easy matter to find a high school student who is going to Harvard, Yale, Vassar, or some other institution, who has gained a great deal of information and skill in Latin and French, or in history, but who had almost nothing in relation to health during the four years of high school, or the three years of senior high school.

On the other hand, the student who is not going to college

sometimes has a very excellent opportunity for health instruction. She may have a course in home economics, an excellent course in biology, something perhaps in botany, as well as in natural sciences. That student may have the privilege of selecting a course in hygiene. So that pupil on leaving the high school is very much better equipped from the point of view of knowledge and attitudes, and all those things that make for individual health, than the student going to college.

These high school students are placed under great pressure and as we all know, along with that, they find a great interest in dances, parties, and various social affairs of that type.

I am certain that students who are going to college are not receiving very much in the way of health instruction in a great many of our high schools. It is deplorable.

Chairman Bailey: Are they not receiving it in college, either?

Dr. Andress: In a great many cases they are getting instruction, but it is very inadequate. We know from our contact with colleges how few students get a special course in hygiene. Then again, they may evade the natural sciences or any of those allied subjects which would bring them information on hygiene and develop the proper attitude. If we couple with that, inadequate instruction in junior high school, we have people sometimes graduating from college who have very little information in hygiene. It seems to me a serious problem.

Mr. Schrader, of our State Department of Physical Education in Massachusetts, tells me that in the normal schools of the state students are entering with a very inadequate preparation in physiology and hygiene. One reason is that is it possible for them to go through the high school without getting either physiology and hygiene, or any of those allied subjects which would give them some definite information. We are facing a situation it seems to me in which everybody is trying to teach the high school student something, and the high school student may just slip through without getting much of anything.

Miss Evans: May I make a comment on the unlikeliness of getting the health slant in scientific courses in college? It is very rarely done.

Dr. Florence L. McKay, Instructor, Child Hygiene, and Head, Department of Health Education, School of Public Health, Radcliffe College, Harvard University, Cambridge, Massachusetts:

My experience is chiefly in the college group, and I would like to bear out what Dr. Andress has said concerning the preparation of the high school students who come to college. In most of the women's colleges I know of there is a compulsory course in hygiene. Also, they have more or less health education throughout their college course.

Chairman Bailey: May I ask if I am correctly informed that the College Board Entrance Examinations do not recognize physiology, thereby putting a bar on the election of physiology by a college preparatory student?

Dr. Andress: In our Newton, Massachusetts, high school it would be impossible to elect physiology and hygiene as a college subject. I rather think that the reason physiology is barred from the College Board Examination is because physiology has never been adequately taught from the laboratory point of view in high schools, which is a standard that the College Board Examinations demand.

Chairman Bailey: Then at present it is impossible from the standpoint of the set-up of the college preparatory course.

I think we all feel that pupils are interested. For the student not going to college, Dr. Andress is correct in saying some very admirable material is being presented. The student who is going to college has prescribed units which do not permit of the introduction of such material.

Miss Reynolds: A state director of health and physical education discussing the subject of health education in senior high schools, said it should be taught undoubtedly as a required subject. As there were a great many subjects, he felt the day should be lengthened in order to teach health to all students in senior high school. There was a superintendent of schools present at this conference and he agreed.

I want to register most emphatic disagreement with that point of view. It would be fine if we could teach health in the best way we know how to all senior high school students, but

if we have to choose between crowding in another subject and not teaching health, I should say by all means do not teach health.

I do not know whether you have seen the publication, "Creating a Curriculum for Adolescent Youth," a research bulletin of the National Education Association. It gave in detail the program of 139 junior high schools in 31 different states. In every one of those high schools, except one, hygiene was a required course in the eighth grade in junior high school. Educators are pretty generally admitting it into the junior high school as a required subject. Then, by such a continuous study of what the students know and do, additional health knowledge can be given through the other science courses and through the other courses.

Chairman Bailey: Can this need for health instruction in secondary schools be met by a course at the junior high school level, leaving the senior high open to election and to interpenetration of all courses as far as teachers can be prepared and interested?

Dr. Strang: I should like to know what the value of physiology is for health. What is the relation between study of the structure and function of the body to the actual health process? It seems to me if it is well taught it has a real value. For instance, one of the subjects I have been quite interested in in high school is the care of eyes. I think that is one of the subjects in which we completely failed in health education. I have seen not only terrible conditions in the schools in which the students are studying, but they do not seem to have any consciousness of when they are straining their eyes. Physiology of the eye, when taught from the standpoint of health, has a very real contribution to make, and I think it is hard to teach care of the eyes unless you have a certain amount of physiological knowledge back of it.

Chairman Bailey: Not only of the eyes, but the rest of the human body. Does that give any indication at all?

Dr. Strang: Then the question is, too, whether you teach it as physiology or teach it in connection with these practical problems.

Miss Reynolds: In my opinion, the modern health education movement developed since the War, has laid emphasis on doing rather than on knowing, and rightly so, but I think as we go up through the grades and as the students reach the mental maturity that psychologists tell us they reach in high school, one course should be given undoubtedly in which we tell them the scientific facts on which health practices are based, in a way that is scaled to their more mature intelligence. This seems to me rather fundamental.

Mr. Eastwood: A very definite problem is finding out what are adolescent characteristics. The content should be based to a very large extent on characteristics. I believe Miss Hoefer, in elementary school work, has classified very distinctly what are mental characteristics, and tried to fit the content to the mental characteristics of that age group.

Dr. Strang: Mrs. Hollingworth, in her recent book on adolescence, gives the best present summary on the characteristics.

Dr. Laton: We need some research as to what material has health significance, and we need experimental teaching in various ways of getting over that material. Then we need the development of tests which really show us whether we have gotten it over or not.

Chairman Bailey: Should the content of the course be determined before its acceptance into the curricula? If we are going to do experimental teaching we must have leeway. What courses of study are proving satisfactory?

Dr. Andress: When we refer to a course of study, do we refer to information and practice which may be brought out through different related subjects in the curriculum, or are we thinking of a specific course in hygiene in the high school?

Chairman Bailey: So far as observation tells us anything about it, the early stages of health instruction in a community are embodied in a specialized course. As interest spreads, more teachers become competent and awake, and you will find the material becoming more and more embodied in other courses. What the next stage is I think we do not know. Is that a fair

summary of the present situation? How many of you are working in a situation where you have a special course in hygiene as such? (Six.) How many are working in a situation in which the responsibility is carried at least in part by other teachers than the hygiene teacher, who find interest and activity in the incorporation of health material in other courses? (About ten.)

Miss Evans: May I ask what the possibility is in these highly correlated or basic subject courses, of carrying the health material? There should be a practical application of the knowledge gained, such as some special club or health period, something whereby they will use the knowledge they are gaining in these basic courses.

Dr. Andrus: I will tell you what we are trying to do in a course in two New York State colleges. I hesitate to say it has results yet because we have not had it long enough. We are having a course which we are calling "Family Life." This is not one of these unit after unit affairs, as I will explain in a minute. It is taught by the sociologist, the psychologist, the health person, the nutrition worker, and the home economics person. Those five department heads will meet with a selected group of students once a week, and they will be guided in selecting subject matter. Work is not to be set up around the textbook, or around lectures, but around situations. That group of staff members is now busy selecting the situations which will be presented for study to which they will contribute subject matter. In the solution of those situations we hope the students will get the practice and the application of the subject matter. In other words, it is somewhat like clinical instruction in a medical school.

We are working, but in a much more elementary and embryonic way, on a similar set-up for high school students. This probably will be an offshoot of one of the general home economic courses which is now given, but it will be a correlated course on the situational basis. To my knowledge many students are entering college with plenty of knowledge of what they should do, eat, wear, and when they should go to bed, but, like a lot of us, they do not do it.

Mr. Altenberg: In my estimation it is not a question of attitudes and knowledge so much as it is a question of habits. A child may come from elementary school to high school, and he may know he is supposed to take a shower, he may know it is good from a health standpoint, good from a cleanliness standpoint; he may have had extensive courses in biology or hygiene, but if he has not developed the habit of taking that shower when he is supposed to take it, he will not do it.

Chairman Bailey: This is a whole school problem, the only really dangerous thing in a high school set-up is to think that the physical educator, the science teacher, or the special hygiene teacher, or anybody else, can meet the whole situation. We may hold to that, clearly. May I take a little liberty that does not belong to a chairman to comment on the difference between Dr. Andrus' point of view and Mr. Altenberg's? Dr. Andrus is interested in familiarizing the student with definite, factual knowledge; Mr. Altenberg is primarily interested in their acquiring definite health habits. Can we agree both are valid objectives?

The Section: Yes.

Mrs. Avery: I would like to ask Dr. Andrus if the credit for the "Family Life" course goes to the home economics department?

Dr. Andrus: We hope to get a half-unit credit under the Regents for it when we get the units established. In the two teachers' colleges it will be given credit in any one department which coöperates in giving it, according to the number of credits that the student has.

Chairman Bailey: Dr. Laton will tell us something of the work that is being done in the University High School.

Dr. Laton: I was asked to speak primarily on the contribution which science can make to health education. There are one or two points I would like to make before I start that topic. One is that the problem in high school is tremendously complicated by the extreme departmentalization, as we all know, and any contribution which science makes to health education should fit into a whole school program. There may be

a very energetic, isolated health project in the physical education department, and another in the science department. The social study department may teach a great deal about public health and sanitation, and almost invariably there will be overlapping, useless repetition on the one hand, and on the other hand great gaps which are covered in none of the departments. So that the first point I want to make is that the contribution of science is best made when it is an integral part of a whole school program to which every department in the school is conscientiously contributing. There are all kinds of opportunities for correlation and coördination with the work in physical education, home economics, and social studies, and we need teachers who know how to make the best use of those opportunities, who have some training in thinking of health education as a whole school problem, and of their contribution to it.

The second more or less general point I want to make is that the contribution of science, as well as of every other subject in the high school curriculum, to health education, is contested by the fact that each subject has its own objectives and its own place in the curricula. Teachers cannot forget the contributions which their own subjects are supposed to make to the child education in their enthusiasm over health.

Values of Health Instruction

Health instruction in science and health instruction in the other subjects, should have a twofold value. It should have significance and should contribute to the health education objectives, and it should also enrich the teaching of science, or any other subject we are considering, and contribute to its peculiar objectives.

Within those limitations, I think science teaching in the high school has a very definite contribution to make. When I am talking about science contribution I am not meaning that it is the only department which can make that contribution, but within its own limitations it can make some very definite contributions. I think that the value is twofold—the value in method and the value in subject matter.

From the standpoint of subject matter, there is open, of

course, in the science courses, a great body of scientific facts and a great scientific generalization on which our present health practices are based, and a great deal of that material can be used in furthering science objectives, and at the same time be of value for the health objectives.

To be more concrete, I will give some illustrations. One of the ones I worked at was a unit on communicable disease. I set up an experimental program,* worked out in much more detail than I have worked with any other particular unit. I think it is quite common practice to include in the course of biology a unit on communicable disease. It is quite often linked up with parasitism as a mode of living, and our study of bacteria, transfer of organisms, and so forth.

Guiding the Student's Choice

In teaching it is quite often the fact that teachers do not care particularly which communicable diseases are chosen for study. So they give the students the opportunity of choosing diseases for their consideration under this unit of communicable disease. I took that as common practice and ran a control class by that method. I allowed them to choose the disease they were to report on. The first disease they chose was leprosy; second disease, anthrax; and a little bit later in the list, African sleeping sickness. One of the men with whom I was associated, who had taught the same class, pointed out with pride that one of his classes had chosen elephantiasis as a disease for study. My class chose cholera.

Undoubtedly you can learn about communicable disease and the transfer of organisms by studying something about leprosy, anthrax, cholera, and African sleeping sickness, but I do not think it has much health significance. This was in New York and their choice did not seem to have much health significance for those children.

For the experimental class I did a good deal more study, such as infant mortality statistics, children's records of sick-

* Laton, Anita Duncan, Ph.D. The Psychology of Learning Applied to Health Education. Contributions to Education No. 344, Bureau of Publications, Teachers College, Columbia University, New York, 1929.

ness, and so forth. I decided there were fifteen diseases that New York children of that age ought to know something about. Then I proceeded to set the stage. I find that you can get a high school pupil interested in absolutely anything. One of the most tragic aspects of teaching is that we can warp interests in almost any direction we want. So I set the stage a little and when I asked the experimental class to choose which diseases they wanted to report on, we came out with scarlet fever, measles, chicken pox, and the mumps, not nearly as spectacular as leprosy and anthrax, but they were the free-will choice of that class just as much as the others had been of the other class. We proceeded then to study those diseases. I maintain that we learned as much about the objectives of biology which are to be attained through a study of communicable diseases, or by a study of typhoid, which is pertinent, as the other class did by a study of cholera.

Science Objectives with a Health Angle

There are all kinds of classes in a science curriculum in which a well-trained teacher can find places to present experiences which will contribute to the science objectives and to the health objectives. In chemistry there is a great deal having to do with sanitation which is pertinent to a study of water. There is a great deal concerning foods, adulterants for instance, which is very pertinent to chemistry. In physics I know of one teacher who always introduces into the study of light, something about eyes. In all kinds of classes we teach them to use thermometers, and I see no reason why they cannot get very good practice in using clinical thermometers as well as in using the kind which are never seen in a home after the students leave a laboratory.

So much on subject matter. Of course it is merely a suggestion as to what I think could be done.

From the standpoint of method, we have an opportunity because we have in our curriculum already the mass of generalization and scientific data on which so much of our health practice is based, to give some practice in guiding children to draw their own conclusions and to evaluate health practices.

Psychologists tell us that in high school the children reach their intellectual maturity. If that is so, there is no need for us to talk down to them. We can say, "Here are the facts, now what do you think they mean for living?"

We do not have to preach at them particularly about how organisms are spread, and give them a whole list of habits which they may memorize and never practice. We can make a culture medium, run our fingers over it, the girls can use their powder puffs over it, the boys can use their combs over it, and then we can watch the bacterial colonies grow. Then we can say, "What standards of conduct do you think should be set to prevent the spreading of these organisms?"

Nutrition and Observation

We can in biology or in general science take some of our rats, which always seem to be around biological laboratories. We can introduce milk into the diet of some and leave it out of the diet of others. We can watch growth, coat, posture, activity, and see what happens. Then we can ask pupils to draw their conclusions as to the usefulness of milk in the diet.

We always do something with food tests and criticism of menus. I think that is quite general. It seems to me there is no reason why the children cannot go to their own cafeteria and collect some menus from which their companions, and incidentally they themselves, are choosing foods and criticize those, making the application of the scientific knowledge which they have accumulated.

Our fund of knowledge is changing so fast that it may be in twenty or thirty years we will look back with as much amusement on what we do now in the way of health practice, as we look back on the avoidance of night air, or the wearing of asafetida to prevent communicable disease, which was done a generation ago. The health education, the kind that science can give, ought to have value in making us able to change our minds sometimes, and to change our practices because we see the reason for the change. It ought in some measure to vaccinate us against too many fads.

Coming back to my first point, I think it can serve the

health educational values, and at the same time is a tremendous enrichment of science teaching itself. I think the science teachers can go through their science curricula, if trained, and, without doing any violence to the science objectives, make a tremendous contribution to health education.

Chairman Bailey: Are there any comments on this presentation?

Miss Sherman: It is a great encouragement to hear a person speak from the angle of the new education. We too often are bothered by questions of subject matter and administrative questions relative to bad school situations, and forget that if in certain school situations meeting college requirements, they are able to function so adequately and so constructively, using newer methods in education, there is hope for the bad situation.

Chairman Bailey: The general philosophy underlying Dr. Laton's presentations is probably applicable to all of the other fields touched in high school. It is for our ingenuity and enthusiasm to carry that philosophy into practice.

I would like to remind you of the distinction, which is one of the most useful ones in my own thinking, made by Miss Dolfinger in "Health Trends in Secondary Education," as to the classification of subjects in high school as basic, contributory, and specific courses. Many of our difficulties disappear if we keep that in mind, and do not expect from a basic course a specific health education contribution. On the other hand, we do not try to thin out our basic subject matter into a specific course. The point of view of the two kinds of courses is different, but a high school which ignores any one of those three phases is missing its real opportunity.

Now we have the pleasure of hearing from Miss Perrin, who will tell us something of what physical education might mean from this same standpoint.

Miss Perrin: I have taken the ten suggested general criteria and tried to apply them to this particular part of the health program.

1. "Do the health activities and material conform to scientific knowledge and procedure?" I have added, to this one, "or to the interests and training of the teachers in that particular

situation." Unfortunately, physical education is lacking somewhat in its scientific knowledge of the right content of the physical education course, in immediate values. One proof is that we are still discussing whether girls should go into track and field activities, and if so, whether they are injuring themselves more through the high jump or the broad jump. We have not decided that. I am sorry to make such a negative statement at the outset, but we really are lacking in our scientific knowledge of the material which we are using every day.

2. "Do the health activities and materials satisfy the other educational objectives?" Sometimes if you go through a high school that is living up to the modern educational objectives, you will open the gymnasium door and find the room entirely dominated by the teacher. We have not time to go into any further comments on that, but I think you will see that we do not always live up to the educational objectives which are in practice in the other parts of the curriculum. I am giving you these so that you may be able to evaluate the work in the physical education department for yourselves.

3. "Do the health materials and activities integrate mental, emotional, social, and physical health values?" I have placed "joy" as the first word to remind me of what I wanted to say. How many times, particularly in secondary schools, do you see the classes file into the gymnasium with a dejected look on their faces? I think that is the first thing you should look for as you step in. Are the children happy? The teacher may look very happy, particularly if the children are in good, straight lines. When she stands up and sees the row perfectly straight it gives her a real satisfaction, and you will see it on her face. I think it is more important to look at the faces of the children and see what attitude they reflect toward their work.

What about the emotional reactions to some of our athletic situations? I think it would be very interesting if some of the men would make a study of the emotional reactions, particularly the follow-up, to some of the so-called "pep" meetings. This I believe is an important thing to study.

4. "Do the health activities and materials provide for differences and needs of individuals and groups?" How many high

schools do we go into and see a group of children on the floor who have entirely different physical needs because of previous training or because of physical status; why are they there? Because that happens to be a group that is not in an algebra class, not in a Latin class, and not in some other class in the school. They happen to be free at that time so we put them all in the gymnasium, no matter how many. We have a nice big room, and everybody who is not busy doing something else is put into the gymnasium. I am going to ask Miss Sherman to supplement this and tell us, later, how she has planned a way of meeting that situation.

5. "Are self-elective motives and inherent interests developed and guided to fullest realization within the social group?" How many times do we step into a gymnasium and see the work fitted to the apparatus which happens to be there? Perhaps the original person who planned the equipment of that gymnasium ten, twenty or thirty years ago, was a strong advocate of flying rings, trapezes, or some other thing, and the new instructor who is there feels obliged to make use of what he finds. Have we the courage to scrap apparatus which cost a lot of money, or do the taxpayers expect when they walk into that room to see it in use?

6. "Do the health activities and materials aid in an understanding of social demands and social needs?" Now we come to a very serious problem, that of athletics. After we have a game between two schools, one school against another, what are the social reactions? We are often taught that we believe in interschool athletics because we want our children to become better acquainted with other children. Because they have been playing against those children, do they like them better; do they know them better; have they a greater respect for that school? Do they know the activities that are carried on there as well as the activities carried on within their own group? I wish whenever you go to the next interschool athletic competition you would think, not of who is going to win, but of what the social advantages are.

7. "Do the health activities and materials lead into further activities or materials, and into wider interests and understandings?" I am going to paint a picture of the first day in

the gymnasium of a high school class of girls I visited. They came in (they never had been in the gymnasium before) and they thought they were going to have a good time. They were lined up and for twenty minutes were given the initial stages of a left and right face. I had visited the elementary schools in that town and had seen facings taught in every grade. But here, their first day in the high school, they were not even allowed to turn. The time was spent in preparation for turning.

When I asked the teacher if they had not learned to face in the elementary schools (she also had some responsibility in the elementary schools), she said, "Oh, but their technique is so poor!"

Certainly eight years of facings might have led to something further! I believe that in the high schools we do not stop to consider what the children have learned in the elementary schools.

Further interested, I asked her just why it was necessary for girls to know how to face, what life situation it fitted into. She could not seem to think.

8. "Are the health activities and materials identified with or related to situations significant to the pupils?" Are we teaching them to play games that they will never use after they have left the school? Are we spending too much time on highly organized games such as basketball and field hockey, when we might put more time on the use of community opportunities? Do we study the opportunities in that community?

For instance, I have been to elementary schools, we will say in the Middle West, where there were no opportunities for swimming, but they were teaching dry land swimming because they thought that was a good exercise. The children thought they were learning how to swim. It seems to me we ought to adapt our work entirely to the opportunities of the children outside of the schools. It was a little pitiful to see them lying on the top of the desks, struggling to get the arms and legs in motion, when there was no water to swim in.

9. "Does appropriate individual conduct emerge from the health activities and from the use of health materials?" I will give you another instance of a demonstration at the end of the year of a physical education program. The parents were

all lined up and there were hundreds of boys on the floor. It was a very simple relay game, and it was impossible for the instructor at one end of the room to see what was going on at the back of the room. The children and parents had a wonderful time because at the end of the line, where they could not be observed, they were cheating, and they were having great sport because of it, like children getting away from the policeman. This instructor had been working so hard to get them in straight lines that the children had not been trained in the importance of keeping the rules of a very simple game.

10. "Do the activities and materials secure the cooperation of parents, school administrators, teachers, pupils, and community agencies?" A good demonstration of that is: Are taxpayers willing to pay out money for activity programs and places to carry out activity programs in the community, or do they want that money to go into an expensive stadium so that they themselves may sit in the bleachers and watch a few young people play for the sake of the excitement that they, the onlookers, get?

I think that is a very good way of measuring up the carry-over of a real physical education program in the community. For instance, I went to a high school. It was proud that the boys' football team had not lost a game for ten years. That was wonderful. Their gate receipts were enormous. They had thousands in the bank, and besides that they had contributed to a big community stadium where these wonderful games were played. I asked how much of that money ever was of use to the big student body, and the treasurer, a member of the history department, had to think a minute. Then his face brightened and he said, "Oh, yes, we have a party every spring and we pay for the ice cream and cake at that party, and every student gets some." The rest of it was in the stadium and in the bank.

I do not think it is necessary to speak specifically of the health objectives in physical education, because they are so apparent, but in order to carry them out, it is needless to say, we need physical examinations, we need a program which will fit every child, and no matter how much time is given within school hours to every child (you may have sixty minutes a

day), if a lot of extra time, extra money, extra effort, is used in training a school team, there is something wrong. That extra time, money, effort could be spread out over the whole student body.

Will Miss Sherman be good enough now to tell us how she has adjusted the situation of taking care of the individual needs of the children in a high school situation?

Miss Sherman: We started four years ago to study really the health needs of adolescent children. We have a high school which is the old-type, four-year high school, with 3000 children. I am so interested to tell you about the whole health project that I do not know just how to bring it down to the particular physical education side. I think the briefest way to go at it is to simply say that we had the coöperation of the program makers in the school to such an extent that they recognized the fact that health education (we speak of health education instead of physical education) should be put first on a child's program to avoid the situation to which Miss Perrin referred, that of the gymnasium becoming a dumping ground for masses of children.

We felt that there were a number of things in the old physical education program which would not stand the test of meeting a child's social and physical needs. I am going to jump over the period of six years' study, and how this all came about, to tell you where we are today, when we are issuing a loose-leaf program. That will show you that we feel that our scientific knowledge is inadequate and the program is in a process of change.

We put all children who were new to the school, all entering students, into an appraisal class in their physical education activities. We planned for a homogeneous grouping and classification through testing those children and discovering what they had learned before they came to us. We then arranged, according to the results of these tests, for a group of children who need what we call "fundamental physical skills." This is a very small clinical group. In grade schools children should have learned a certain physical ability in running, jumping, balance, agility, and certain fundamental physical abilities.

We find, incidentally, that all children who go into this group of backward children, physically speaking, always need all the other things in which they are tested, that is, they always need the other activities.

Since we are not in a "dry land" community and have plenty of opportunity for swimming, we put swimming next as one of the things in which the children are tested.

Sport Tests

Then we test the children in sports. We have an individual sport and a team sport out of a large group of individual sports and team sports, and we ask that they be proficient in one of these types. Individual sports are tennis, golf, practical community activities, bowling, archery, and various other things.

We also give a test in social dancing. Then if a child is up to the level of accomplishment, we do not have any required work for that child in physical education, but we have an elective program in sports, dancing, swimming, and extra-curricular activities managed by the students, of course, with an athletic association.

I do not know whether I have managed to convey to you the idea that our old type of physical education program has been swept away simply by studying what the individual needs of children were.

After a child has been for one semester in the appraisal class, if his physical condition and his ability, physically speaking, are what they should be, we have as a tentative plan at present the idea that we will give that child ten points' credit in the high school. We find that there are very few children who would receive this credit. We would give the credit conditionally, depending on the fact that the physical condition and ability were kept at this level. We do find that we have, on the part of those children who are up to the mark, a great interest in the elective program. The children who already can swim and play tennis are the very ones who are anxious to go out for the intramural athletic activities.

I do think, by approaching the problem with an open mind,

we have avoided the type of program in which a great deal of time is spent on formal and disciplinary gymnastic activities.

Question: After they have gone beyond the examination time under control, is there any time limit to what they may elect? Have you some way of knowing who elects, and how long they are in their elective hours?

Miss Sherman: We have a way of knowing what they elect and how many years they spend in electing swimming or sports, but we are not interested on a time basis. We are interested in the development of the child and we feel that one type of child may belong to a golf club somewhere in the community, another child may ride horseback utterly apart from school activities. We keep a record of that, watching this growing, developing child, but we have no concern about the time he spends in school on such matters. We would not neglect a child and not try to interest him in the elective program. That is done through a student organization and through sports days, in which all children go out and play together. There is no competition except as they have fun in playing, and they meet children from another school, of course, in that type of thing. There are dance festivals, carnivals, all types of things in which we try to interest the children.

I do think if you have an exceptional child who is interested in art, who is a good tennis player, can swim, is good as far as social dancing is concerned, is up to normal in all those respects, but does not take physical exercise regularly and does not engage in sports, that you should not be a bit concerned about that child, providing the physical condition is not lowered. We have no scientific proof that through neglecting daily physical exercise there would be a lowering of the health status.

Miss Knowlton: I would like to ask the method of following up the students who choose the out-of-school program? How often do you see them?

Miss Sherman: Yes, we do have a regular procedure because of the fact that an annual health examination is given to each child. Our problem so far has not been with the very small percentage who were up to standard. Our problem has been

with the fact that so many of the children were so anxious to learn sports, such a large group, surprisingly enough, wanted to know about social dancing, and so many needed to learn to swim, that we have been concerned with making them all happy and proficient, and the top-notch people have been our leaders.

The whole student body is interested in the extracurricular and after-school activity. Any child of the school may take elective classes carried on in regular school time, such as advanced dancing, advanced swimming, and so forth.

Chairman Bailey: I would like to call attention to the fact that here is one high school subject which recognizes achievement rather than marking time. This is a physical education department in which it is not necessary to be on the spot. The student is called on to deliver some goods, and having delivered them is appraised and allowed to enjoy his supposedly divine right of individual choice. This remarkable achievement Miss Sherman has reported to us is something we can well emulate in every other department.

Miss Harriet J. Fort, Health Supervisor, Amityville Public Schools, Long Island, New York:

May I ask Miss Perrin what she would do with the children in the classroom, or in the gymnasium, when the doctor has said they should not take gymnastic work? Where there is no provision for special classes, what are you going to do with those children during that class period when they just sit around, or lounge around on the grounds, not being able to participate?

Miss Perrin: They could do refereeing; they could help in arranging the grounds. There are a great many responsibilities in connection with athletics that those children can fill. They usually like to referee. I think that is the solution if you wish to keep them with the other group. Those are things which they can do which are not active.

Miss Sherman: I think it is quite true the children could referee beautifully if it were a tennis match. However, if you take a game of baseball, you find the job of referee is much more strenuous than all the others.

Mr. Altenberg: That is where our physical examination comes in. If a boy or a girl is particularly interested in that particular field of activity, you will find if he is physically unable to take part in the active program you can utilize him in your administrative work around the office during his spare time. For those cases entirely unable to take active part in the program, I am lining up for next year a walking group which is going to study observational biology as a hobby, not as a required work, to try and provide some active interest for those particular children that involves actual physical exercise compatible with their physical ability.

Chairman Bailey: Are there any further comments on this most interesting problem, the contributions of physical education?

Do you have the impression that we have been dealing with at least two very diverse sets of problems in this discussion? We have, on the one hand, our basic subject matter; on the other, our specific contributions. If they may only be so interrelated in high school the results would be all we could desire, I am sure. I should not like to see the session close without some reference to the contributory subjects. Is there anyone here who knows of any service which an English department may render to the health development of the children in the high school?

Miss Evans: Much social hygiene may be accomplished in setting standards and ideals through characters in literature. I think that is a pretty well accepted fact.

Chairman Bailey: The problem there is, as in the science, the choice of materials.

Miss Knowlton: Our English department in the freshman year of the four-year high school, has done considerable work along the line of studying the health requirements for various vocations. They have linked the vocational work with the health status of the child to a very great extent.

Chairman Bailey: That is an interesting contribution.

Dr. Andress: I think there is a desirable attitude to be cultivated called "out-of-door-mindedness." I assume the best way

to get that is to get boys and girls out in the open air doing things. At the same time, it seems to me the study of literature might contribute somewhat to it. I refer to such authors as John Burroughs, and many others, who have gloried in the out-of-doors, and who teach us how to enjoy nature. The English teacher imbued with the idea of health service can do something in cultivating this attitude.

Miss Laura A. Buchanan, Associate Director, Cleveland Red Cross Teaching Center, Cleveland, Ohio:

I know of one high school teacher who contributed to a course in health education. Some of the students were also in the English class. They took the material they were getting in their health education class, and wrote a health column for the school paper. For this their English teacher gave them essay credit in the English class.

Miss Pauline B. Williamson, Chief, School Health Bureau, Welfare Division, Metropolitan Life Insurance Company, New York:

I was thinking of Dr. Bailey's monograph, "Some Ways of Using the Health Heroes Series—An Outline for Teachers," in which she gives suggestions for the use of English and history. In the debating of all the subjects we hope the attitudes are established toward healthful living.

Miss Rowell: A very splendid contribution of the English teaching staff is to the mental health and poise of the pupils in the school. A specific instance of this occurred with my eighth-grade science class which invited another eighth-grade science class to witness a demonstration. It had not occurred to me to prepare my class to handle the social aspect of the situation. We had concentrated on the preparation of the actual demonstration material apparatus. To my great astonishment, my class chairman and the chairman of the various groups connected with the demonstration, and all the pupils in any way connected with the demonstration, conducted themselves with the greatest possible composure, and with the greatest possible social adaptation.

I could not help remarking on the contrast between the way

that class, utterly without coaching on my part, handled the situation, and the way any class of which I had been a member in my grammar school days would have handled the same situation. I thought it was a remarkable tribute to the preparation the English teachers are giving to pupils. I am quite sure in our school that that training is given particularly in the English classes.

A Health Study Needed

"I do not believe it is necessary," said Chairman Bailey, "to introduce Miss Reynolds to this group. We all know of her work, not alone this year, but over several years."

Miss Reynolds: The National Tuberculosis Association is particularly interested in this question of health education in high schools. The age group in which high school students fall is the age group in which there has not been as much reduction in the death rate from tuberculosis during the last twenty-five years as in others. Our state associations are very much interested, and are asking us for guidance as to what they might do.

This past year we have been trying to make a beginning by helping certain high schools to study their individual health problems. We believe that the only sound health education program is founded on the individual health needs of a particular school, and we believe there will be a great deal more chance of it being carried out if the faculty of that high school assist in determining the needs.

Miss Katherine Connelly, our school health consultant, has been guiding such studies in five cities in very different parts of the country. They have been made in quite average high schools; one was in a large city with about 1500 students, one was in a small place with only 500 students, the other schools had from 800 to 1000 students.

The plan we have been developing in making such a study is somewhat along this line: The arrangement for a health examination for all of the students have been made before Miss Connelly's arrival. Then Miss Connelly, assisted by other persons, has had an individual conference with each student im-

mediately following the examination, to interpret the findings and to answer any questions which have been raised in the student's mind.

Chairman Bailey: Will you tell us the training of Miss Connelly, because the question has come up repeatedly, as to who should carry these personal conferences, including physical examinations?

Miss Reynolds: Miss Connelly was trained as a teacher, and then took special training in physiology at the Johns Hopkins University; following that she took a master's degree in health education at Teachers' College, and she has nearly completed her work for a Ph.D., majoring in nutrition and health education. Miss Connelly felt these conferences were really encouraging. Out of 2000 students with whom she held personal conferences, there were not more than ten students who did not take the health examination very seriously and have many questions they really wanted to ask as to what it meant and what it might do. The attitude of students toward these examinations was one of the things that came out in this study.

After the health examination a summary of the findings was made, tabulating the principal health defects found.

A summary of the principal causes of absence, made from the records kept at the school, has not been particularly satisfactory.

The students have been asked to make a report on their present habits in some of the things that are quite fundamental to health. That was done through the coöperation of the homeroom teacher. The homeroom period was lengthened in order to give them an opportunity to make this statement, which was unsigned and quite informal. Although we have no checkup as to their accuracy, we felt we got a great deal of valuable information from the statements themselves. The health habits they reported were tabulated.

The next step was an attempt to find out from the entire faculty of the high school what they considered to be the health needs of the school. This was done by means of a questionnaire which they were asked to fill out, in which we attempted to guide their thinking along lines we thought were essential to

health. However, we gave them an opportunity to express themselves on anything not covered by the questionnaire, which they thought vital to health.

Through the coöperation of the English department, the students were invited to make statements as to what they felt were health needs of the school. They were not guided by any questionnaire at all. They were simply asked to state anything they thought was a health need.

Then in order to tie in the home, we had a health survey rating blank distributed to the parents. It was not felt wise to ask for a return of that. The parents were simply asked to score themselves according to these standards, and then to score themselves at a later period to see if they could improve their score.

Then after this information had been assembled, there was a meeting of the faculty at which an organization called the Faculty Health Committee was formed. The people put on this committee were those interested enough to volunteer to become members, and also, as the students had become interested, a Student Health Council was organized. There has not been much time for follow-up, but those two committees are still functioning.

A few quite encouraging facts came out of the study. The first I have spoken of, the attitude of the students toward the health examination, showing their wish to know what they could do to improve their health in any way.

Another encouraging thing was the extremely intelligent and pertinent comments that the students themselves made when they were asked to comment on factors which they felt were important to health and which the schools might improve. They showed particularly that health education in the schools along the line of control of communicable diseases had taken effect. For instance, in one of the schools the drinking fountain apparently did not have a sufficient flow of water over it to make it very safe. The number of students commenting on that in their unguided statements was really encouraging. On the other hand, certainly not more than one of the faculty commented on that fact. I do not wish to imply that the faculty

did not know, but their statements did not have the touch of reality of the students' statements.

Many students also commented on the difficulty of washing their hands before they went into the school cafeteria. Their comments on ventilation and light were fewer, but still were to the point.

Sufficient Sleep a Health Problem

Two or three things have stood out in my mind as real needs, after examining the material which has been brought together by these studies and visiting a great many high schools in different parts of the country during the last two years. The outstanding problem is that high school students are not getting sufficient sleep and rest. In one of these schools, in which we felt we got the most complete report of the students' health habits, more than half of those reporting got seven hours or less of sleep at night, by their own acknowledgment.

I think we all admit that it is not too high an estimate to say that growing boys and girls of that age ought to have nine hours of sleep. This was in a city of not more than 10,000, with few diversions. That really does constitute a real health problem.

One cause was the fact that the students were doing outside work. In this connection, I wonder if any of you know the study made by the National Child Labor Committee at the request of a city in Oklahoma. This city wanted a study made to show whether it had a child labor problem. The report stated that the child labor in that city was the problem of the child who worked before and after school hours. The hours at work, added to the hours of school, the hours of preparation of lessons, made a work day that would not be permitted for adults in most communities.

In almost all high schools there were some children working their way. I talked to a number of principals about them. While we certainly do not want to put discouragement in their way, they could be helped to do it with far less injury to their health if there was someone in the school who knew these students, how long they were working and what kind of work they

were doing. Then that data should be considered by the persons planning their school schedules. I did not find a school that really had that information.

I think the school itself is partly to blame for a certain pushed-and-driven feeling that a great many students seem to have. In one of these schools, in which a study was made, 41 per cent of the girls, and a smaller, but still considerable per cent of the boys, were reported in the health examination as showing signs of nervousness. A pushed-and-driven feeling came out in some of the individual statements the students made.

I have come across a feeling in talking with a great many people connected with high schools, that because high school students do not always make good use of their leisure time, they ought not to be allowed to have any leisure time.

One statement that was made was rather grave: "We study physiology and in that study we learn not to eat our meals fast. Not to do so, we must have the time." That statement occurred again and again, that they did not really have the time to eat their meals—to do the things they were supposed to do.

I could mention many more things that have been of interest to us in this material we have been assembling. The point I want to try to leave with you particularly is that from my point of view the most important thing is to help a high school to study its own health needs. Anything we can do to make them actually see facts in their school will almost always result in action being taken. Our information so far leads us to think there really is a great deal of action that needs to be taken in high schools along health lines.

Miss Birdseye: I should like to ask Miss Reynolds if she found the food habits of these children well balanced or otherwise.

Miss Reynolds: The evidence we have is not conclusive. We found that the questions asked were more as to whether certain things were included in their diet. A considerable proportion of them are quite well informed about vitamins and that sort of thing. My personal opinion is that a great many high

school students are not eating enough food every day. I base that largely on what I have seen of the trays of high school students in schools. It seems to me that we have made an improvement in getting them to include certain types of food, but we forget how tremendously high the food needs of adolescents are.

Miss Birdseye: I am very much interested in what Miss Reynolds has said about the problem of the children who are earning their way. I have not heard any discussion here in connection with health service of a consultant on the right sort of food, and the economical way of supplying food needs, provided money and facilities for its selection are limited.

I can see in the high schools a situation in which boys and girls, especially boys, might go through the entire four or six years without any contact with home economics. They might go through without much contact with the nurse. After all, though nurses know a great deal about food habits, a person who is thoroughly trained in nutrition and physiology and the functions of the body, might be in a particular situation a more reliable guide than a nurse who had a comparatively small amount of food training. So I would like to say that it seems to me that a thoroughly well-organized health service should provide, somewhere in the organization, a reliable consultant on these matters of food needs.

Miss Murphy: I should like to supplement what Miss Birdseye said about considering the fact that there are students going through unexposed to home economics. That is a matter of great concern both to us as health workers, and those of us interested in the possible improvement of home and family relations. I think the fact that boys have no exposure to this at all, or very little in the schools, is serious. Budgeting alone is undoubtedly considered today a matter of grave concern from the standpoint of home life and family relations. I am wondering whether some work along that line through the year might not be made,—a possible, practical plan worked out for the boys and girls in the high schools, or in the elementary schools, that could be used as a basis for the home economics field, because I think everybody who grows up ought to have it.

Chairman Bailey: You have heard that suggestion. Do you wish to take any action? Perhaps it would be well to make note of that and bring it up for further discussion.

Miss Mary G. McCormick, Supervisor of Nutrition, State Education Department, University of the State of New York, Albany, New York:

People trained in nutrition and home economics are available, and we are urging our state superintendent to place those people, the state supervisors of home economics and of nutrition coöperating. When school superintendents are looking for new home economics people it would be wise to specify that the persons who apply for the positions be trained in nutrition, then they are available for consultation services. The trouble with many of our home economics people is, they have not been trained thoroughly. When we call on them for help they are unprepared. So many specialized in clothing during their period of preparation. That is not of great help to us in nutrition.

Miss Fort: In our school on Long Island, we have a good home economics teacher who acts in just such capacity through the eighth grade, and with some of the high school students.

Mrs. Hobson: Our home economics teacher is on the health committee, so when we work out our problem for the whole school we always include nutrition. It is mentioned in our bulletins and in our papers throughout the year.

Chairman Bailey: It is certainly illuminating to hear this report from the field as to the situation in which our secondary schools find themselves. There is growing among some of us a strong suspicion that there is a very large percentage (I hate to guess how much) of the high school population suffering definite handicaps because of the high school program. So before we go too far in attempting to correct health defects, we might find out what we are contributing toward producing them.

I would like to underscore Miss Reynolds' emphasis on the need of a health study. We have all said we needed coöperation but have failed to make this very blunt statement that the way

to get coöperation is to permit everybody to have an oar. Coöperation with three or four, or a dozen lying down in the boat and one rowing, is too common, and people are much more enthusiastic about a program which they help make. It may not be as good as the one someone on the outside could think up, but it will live longer.

We have discussed the health contribution which could be made through science teaching and through physical education. Someone said something as to what English might do. Now we have had a very interesting contribution as to what the home economics might do to help. Particularly, I would like to emphasize Miss Murphy's suggestion that it is a matter of concern for the homes of tomorrow.

Miss Marion S. Van Liew, Chief, Bureau of Home Economics, State Education Department, University of the State of New York, Albany, New York:

In organizing the home economics work in the Bureau of Home Economics in the New York State Department of Education, among many things brought to our attention is the little or no coöperation in home economics with health education. As a leader in New York State of home economics, I feel that health is one of the fundamentals of home making, and we should be coöperating with a very definite program in the state on health education. Home economics teachers as a group, feel in some cases that health education for the child, for the parents, for the home, is part of home economics education.

In the State Department of Education, the Bureau of Home Economics and the Division of Health Education have come together to consider a very definite plan of coöperation.

That is not the only place where we are coöperating in the State Department of Education as we are beginning a program of integration that I think is a delight and pleasure to everyone in the State Department. No longer can we be isolated in our separate fields. Health cannot ignore us, neither can we ignore health, so we are calling on health education to assist us in our program and health is calling on us to assist in its program of health education.

This past year the Bureau of Home Economics called to-

gether for the first time in the history of the state, supervisors of home economics education, who expressed the desire and need to coöperate with the health education personnel. To illustrate some of this work that has been started, Miss McCormick is in charge of nutrition in the Health Education Division. We in home economics teach nutrition. We have units in our junior and in our senior high school. When there is a nutrition expert in any town or city, we use her in coöperation with the home economics teacher to present that work in home economics. Our home economics teacher is asked to coöperate with the nutrition worker as far as possible in presenting a nutrition program to other than home economics students.

An interesting thing is developing. In the state program of junior high school education, home economics is taught in general only to girls. What is happening with the nutrition program in the state? Boys cannot be ignored, so as a beginning of probably something excellent in the near future, we are suggesting to the teachers of home economics, on the recommendation of Miss McCormick, Supervisor of Nutrition, that a certain number of lessons during the year be given to boys and girls together in the junior high school. This plan made by the state offices and offered the teachers in the state is a coöperative program. No doubt, in the near future, it will also extend to boys and girls in the senior high school.

Miss Maud A. Brown, Director, Bureau Coöperative School Health Service, University Extension Division, University of Kansas, Lawrence, Kansas:

I think the point about the boys needing it is infinitely important and I hope later on that the home economics personnel can give us some plans for giving to the boys the work that the girls get, which is pretty nearly all they need to know about health.

Miss Edna B. McNaughton, Professor, Home Economics, University of Maryland, College Park, Maryland:

I want to say I believe that perhaps that difficulty could be met if your State Board of Education believed that home eco-

nomics is essential for everyone. In Maryland home economics is a required subject in the curriculum. Every girl must have one unit of it. Two years ago that was made optional, but I think almost every girl in the state elects that in the first group high school.

This year there has been established work in vocational school for the boys. They are given home economics work in nutrition by home economics teachers. The girls are given some work by the agricultural teacher, but the boys are getting the home economics work and we do expect they will have it in the general course.

Chairman Bailey: Miss Williamson, who has done so much through the Metropolitan Life Insurance Welfare Bureau to provide us all with interesting material, has asked Dr. Laton to present some material, prepared at the suggestion of Miss Dolfinger, on the contribution which could be made through social science. I am particularly glad to have this done because social studies may make a very important contribution.

Dr. Laton: Perhaps some of you know the Health and Civic Loose-Leaf Notebook which has been published by the Metropolitan Life Insurance Company and is being used experimentally in a few schools. It has been so successful that it will be published through a regular publishing house within the next year.

It seems to me to be very interesting material, satisfying a number of the criteria which we have set up and which we have employed in our discussion of health education in secondary schools. It is intended for about the tenth grade, though of course that might vary somewhat. It is made loose leaf so other material can be put in as needed, also, so some units may be used in civics class, in a science class, or wherever they might fit in best with the work already done. It is an attempt to enrich what is being done rather than set up some absolute directions.

There is a teacher's handbook, as well as a teacher's edition and a student's edition. The teacher's edition gives some suggestions for use.

Two of the most important objectives are inducing pupils to acquaint themselves with local health conditions and to set up standards for community health. As I look through it seemed to me there is a third objective, that of helping our teachers in service to find actual first-hand data, and some of the ways of getting hold of material. There are suggestions here for getting other data than that presented, and also the suggestions that the Metropolitan would help if the teacher could not get it.

The aim of the first part of this book is to get students to go out and find out something about health conditions in their own community. Then having done that, the second part is devoted to making suggestions for improving the health of that community by drawing up a model health code and comparing it with what is being done. A third part relates to the national situation, what national laws and the national organizations can do to help the community.

It seems to me to be very suggestive, interesting material not only for the social study teachers, but for the general science and biology teachers, and I should think for the teachers of home economics also.

Chairman Bailey: The loose-leaf idea merges directly in this discussion. I think a loose-leaf attitude of mind, holding one's knowledge subject to revision, would perhaps be as desirable as the loose-leaf course of study. Such loose-leaf material might be in the hands of the health coördinator, or health counselor in the school, and fed out to persons who took the most interest in using it. It would be a real integration. You cannot tear a textbook to pieces, but have we not all wanted to? I hope we can see some practical way to keep the loose-leaf idea growing. The mechanical difficulties block many fine inspirations.

Miss Chayer: In trying to do just this thing, the matter of studying one's community, I have had a great deal of difficulty because my teachers say that neither they nor the children have the time to collect the material which they need to collect to get the things which they need to know. I wonder

if anybody has had that same difficulty. My teachers wanted the entire community health program taken out of our course of study; they said it took too long.

Dr. Hannah McK. Lyons, Nutritionist, Philadelphia Inter-State Dairy Council, Philadelphia, Pennsylvania:

I think what Miss Chayer has said is very true. Dr. Haven Emerson said to us in Philadelphia not very long ago in speaking of the volunteer organization and what it is doing and ought to do, that that is its field perhaps, because a busy teacher has so little time to prepare and assemble these things.

Miss McCormick: In regard to making it easier for the teacher to get material, it is a very strategic thing to place the librarian on the health council. If she knows there is a special need of material, she sends away or searches her shelves for books, leaflets, and pamphlets, and places them where they are readily accessible.

Dr. Laton: I think if we would start from the ground up and throw away some of our ideas of what the children should be getting, the way Miss Sherman seems to have done with physical education, and start all over with what they need, we would find that sometimes one of the objectives which is most valuable is the actual getting of the material. You may not cover as wide a field but you may do it so much more educationally that it pays to take the time devoted to memorizing or writing, to do something real in collecting the material itself.

Chairman Bailey: Briefly, we must look to the four fields, science, social studies, physical education, and home economics, for our basic education in high school, and certainly the representatives of those four fields constitute a nucleus out of which the health instruction program must grow, and by which it must be guided.

Dr. Oberteuffer is going to present to us some material relating to textbooks for our course of study.

Dr. Delbert Oberteuffer, Director, Department of Physical Education for Men, University of Oregon, Eugene, Oregon:

What criteria should guide in the selection of subject matter, —textbooks and courses of study? I shall attempt a partial answer of that question.

This does not represent any particular research nor any special scholarship along the line of standard formation. These criteria represent points of departure only. They may serve as a basis to help us in selecting textbooks if we have textbooks to select, or they may serve as a basis by which we may judge a course of study in health education in case we have courses of study to judge, or to make.

The criteria are drawn from many sources. The references are available in case anyone wishes them. There are several criteria listed in each of the two divisions I want to cover. We will start with the criteria I have enumerated for judging courses of study in health education.

Criteria * for Judging Courses of Study in Health Education

1. The subject material must be scientifically accurate throughout and in thorough accord with the best available knowledge in the biological sciences.

2. The course should be on an activity basis, giving constant opportunity for healthful practice, and aimed more at the development of health conduct than at the acquisition of knowledge.

3. The course should be built in response to data from student life concerning needs, interests, and capacities, and not set up solely in terms of what course-makers believe should be included.

4. The course of study should include only those offerings which will be "profitable to the learners in a personal sense" and profitable "to their future coöperators, including the state, in a social sense."

5. It should foster the conception of health as a qualitative result of the interdependence of all the vital systems, involving the mental and social aspects of living as well as the physical.

* All criteria so marked have been adopted from Johnson, Franklin W., *A Checking List for the Selection of High School Textbooks*. Teachers College Record, October 1925, Volume 27, No. 2, p. 104.

6. The course should constantly interpret health from a social point of view, explaining health in terms of social use.

7. There should be definite continuity of subject matter, so as to preclude any idea that health results from the development of any one or unrelated systems.

8. The specific and intrinsic needs and interests of secondary school students should receive full treatment, sacrificing, if ever necessary, deferred values for immediate satisfactions.

9. The course should not assume that health can be made an academic subject to the extent that it can be subjected to the usual order of assignments, topics, examinations, and grading schemes. The course of study in health, therefore, should be elastic, capable of change with the interest and needs of the class.

10. There should be an abundance of material of varying difficulty so as to admit of choice suited to the needs of the individuals differing in capacity and experience.*

11. The units of work within the course of study should be progressively graded so as to provide for continuous growth in the subject.

12. The subject matter should be selected, arranged, and written in accordance with the best available knowledge regarding the learning process and the accepted principles and objectives of secondary education.

13. The course should provide frequent and specific opportunity for correlation with other subjects in the secondary curriculum, and with other parts of the health education program.

14. The drill material provided should be selected with regard for relative values; it should be suggestive rather than exhaustive, meeting the varying capacities, interests, and needs of the pupils. It should stimulate self-testing.*

15. The general tone of the course with respect to all controversial issues should be one of discreet judgment, free from prejudicial or inaccurate statements. The learnings should never be colored with emotional bias for want of scientific data.

16. Active coöperation of the home and community should be sought through the activities of the course.

17. The technique of thought presentation should be from the particular to the general, each new abstraction, principle, or gen-

eralization being developed through intimate, concrete, individual experience before reaching its final form.

18. Frequent periods for review should be interspersed throughout the course, and questions, topics for reference, reading suggestions, and other devices should be freely used to assist the learner.

19. The use of available educational tests should be encouraged in the course of study, ample time being allotted to such purposes.

20. There should be provided, in connection with each major thought division, an up-to-date series of standard and reliable references, so arranged as to stimulate in the student a desire for a widening of his interests and knowledge.

21. There should be a complete topical bibliography for the use of teachers, appended to the course of study.

22. Questions relative to text or discussion should precede the chapter material.

23. The course of study should require the mastery of a minimum of scientific terminology, enough to handle the ordinary health processes intelligently.

24. The course of study should be understood to be, and so labelled, a "tentative" course of study until such a time as sufficient data from student and adult life are incorporated into it for it to become adequate to answer the needs of the group for which the course is intended.

These criteria do not represent what you might call a score card. They may, however, form a basis for a score card to be developed later.

Chairman Bailey: I infer you are referring here to a specific course in health education, not to a basic or a contributory program?

Dr. Oberteuffer: They were prepared for a specific course. I do not know whether they would apply or not to basic or contributory courses as we have not studied them in that relation.

Chairman Bailey: While we may not be willing to see all health education penned into specific courses in health education, we do find the need of judging carefully those specific

courses, and these criteria are designed for those courses. Are there any of these criteria you feel would not apply to courses basic and contributory to health education? Several would seem to limit us unnecessarily to the practical and the immediately useful. From the beginning of our records we have evidence of the pleasure which men have taken in understanding themselves as far as they could. So from the standpoint of basic subject matter we have many arguments for retaining some anatomical and physiological material which you could not justify on the basis of immediate, practical usefulness, but which will be hailed with considerable interest by students when well presented.

Dr. Oberteuffer: I will present now some suggested criteria for the selection of textbooks in health education for secondary schools. These criteria refer only to books suitable to be placed in the hands of secondary students for use in conjunction with or as a textbook, in the study of problems of personal health in secondary schools. They probably should not be stretched to cover anything else, but just precisely that one particular area.

Certain criteria are repetitions as we felt that they applied not only to courses of study but also to textbooks.

Criteria * for the Selection of Text Books in Health Education for Secondary Schools

I. *General Criteria*

1. The subject material must be scientifically accurate throughout, in thorough accord with the best available knowledge in the biological sciences. In situations in which there is a lack of evidence, the most widely accepted view should be given but not stated as scientific fact. Personal prejudices or exaggerations of the author should be kept at a minimum.

2. The subject material should be chosen after an analysis has been made of the needs, curiosities, and interests of the age group for which the book is intended. The specific and intrinsic health needs of secondary school students should be met.

3. The subject material should consist largely of a succession of experiences, calling for action, and aimed more at the modification and development of conduct than at the acquisition of knowledge.

4. The technique of thought presentation should be from the particular to the general, explaining a function first and the reasons and structure related to it later. The general tone of the text should emphasize the improvement of living, rather than anatomical structure or physiological function; and the approach to the latter should always be through concrete problems of life.

5. The text must meet the social needs of the community and of the various groups within the community.*

6. The concept of health as a qualitative result of the interdependence of all the systems of the body, involving the mental and social aspects of living as well as physical, should be developed in the text.

7. The text should present health from a social point of view and should explain health in terms of productive social use, rather than personal acquisition of strength and power.

8. Regarding points of definite controversy, the text should include briefs of all sides, encouraging and allowing the student to seek further enlightenment but, above all, to make up his own mind, in response to truthfully put statements.

9. There should be an abundance of material of varying difficulty so as to admit of choice suited to the needs of the individuals differing in capacity and experience.*

10. There should be definite continuity of subject matter so as to preclude any idea that health results from the development of any one or unrelated systems.

11. The point of view that normal development, rather than prevention or cure, is predominantly pertinent to the secondary age group should be clearly held in the text.

12. The subject matter should be selected, arranged, and written in accordance with the best available knowledge regarding the learning process and the accepted principles and objectives of secondary education.

II. *Criteria for Organization and Mechanical Make-up.*

1. The author should have sufficient academic training to insure his mastery of subject matter; such professional training as will insure his knowledge of educational principles and aims; and practical experience with pupils of the age for whom the book is

written, the material preferably having been tried out in the classroom. *

2. There should be a reference list of supplementary reading at the end of each chapter, and all quotations and citations of evidence should be plainly marked as footnotes in the text. References should be made to books usually found in school libraries or those easily procurable.*

3. The text should be written to include no more than the optimum civil use of technical terms. In passages where technical vocabulary must be used the words should be defined on the spot and thereafter used frequently in the context. A pronouncing glossary should be included in the book.

4. Specific instruction should be given in the development of normal mental life, emphasis being placed on the attainment of normal intelligent control over the processes of life rather than upon the prevention of neuroses and psychoses.

5. The style of writing should be clear, sincere, vigorous, graphic, and adapted to the mental and social levels of the pupils.*

6. The publisher not only should have a reputation for reliability in the field of the text but also should be in sympathy with educational progress.*

7. The copyright should be recent in proportion to the development in the field.*

8. The material should be gathered around a few main topics rather than around many.*

9. The teacher's preface, preferably the teacher's manual, should give the author's point of view of the aims of the subject and specific objectives and varied suggestions for use of the text in meeting the difficulties within the field.*

10. The introduction should be so related to the previous experiences of the child and should so arouse his curiosity and interest that he will proceed with a favorable attitude toward the text. This can be attained by an intimate and suggestive explanation of the plans and purposes of the text and of what may be gained through its study.*

11. The table of contents should give a definite idea of the scope and outline of the subjects as presented, including titles of chapters and important subdivisions.*

12. The textbook should have a comprehensive index, with multiple references to each topic given in clear type.*

13. The appendix should contain a usable selection of all needed tables, charts, graphs, lists of formulas, supplementary drill material, and suggestive topics and problems to permit further work of local interest.*

14. Illustrations, maps, and sketches should be authentic, up-to-date, in keeping with the subject, educative, artistically attractive. They should be properly explained by a descriptive title with further discussion in the text.*

15. Summaries should cover only those things to be remembered; give a new view of the subject matter; show the high lights of the topics; stimulate to reorganization and further study; suggest problems for pupils to solve—problems fitting their needs and interests in life situations.*

16. Study helps should consist of problems, questions, and topics suggestive of life situations for various individuals of the group; definite directions for method of attacking the tasks set. They should be of such variety that pupils may search independently for their material, and so arranged as to establish good study habits. As a result of such aids, the pupil should find himself becoming increasingly independent.*

17. General reviews should be so organized that, with due regard for economy of learning, they will stimulate thought through a new outlook and give an opportunity for reorganization of subject matter.*

18. The drill material provided should be selected with regard for relative values; it should be suggestive rather than exhaustive, meeting the varying capacities, interests, and needs of the pupils. It should stimulate self-testing.*

19. The binding should be durable and flexible enough to withstand careless handling and should be pleasing in color and design.*

20. The paper should have gloss sufficient to take attractive cuts but not enough to cause eyestrain by producing lights of discomforting intensity.*

21. The size of type and the spacing between words and lines should aim to make reading easy. Hall-Quest gives the following figures: Length of line, 25-90 mm.; height of letters, 1.5 mm.;

space between letters, .5 - .75 mm.; space between vertical strokes, .3 -.5 mm.; space between words, 2.0 mm.; space between lines, 2.5 mm.*

22. The material should be arranged with a suitable margin (allowing for notes) and with proper change of type and spacing to denote relative importance of topic, with due regard to proper balance and finished appearance of the page.*

23. The make-up of the book as a whole should reflect pleasingly the personality of the author and appeal to the æsthetic nature of the pupil.*

Chairman Bailey: I am sure we all feel that that is a genuine contribution. We are not able to discuss these criteria as fully as we might wish. Mr. Kontner, we would like to hear from you on this general problem of courses of study or textbooks.

Mr. E. R. Kontner, State Supervisor, Health and Physical Education, State Department of Public Instruction, Harrisburg, Pennsylvania.

I have been assigned the task of preparing a course of study in health education for secondary schools, to meet a state situation.

When we talk about courses of study, ought we not to indicate whether we refer to one planned to meet a local situation, or a state situation. I think a state situation demands a more elastic course of study than would be necessary in any one community. The range of interest of the teachers may be represented by two extremes: some who overemphasize, and some who have no appreciation for the need of the subject.

I sometimes wonder if the members of the group decide that once those problems of pupil interest, pupil needs have been taken care of, that the problem has been solved. That is not my experience. In addition to the problem related to the pupil, we have the problems related to materials provided by the teacher or by the school district. The resourcefulness of the average teacher is rather limited when it comes to obtaining materials, and she will take anything she can find without critical evaluation.

Even if we had textbooks which were entirely satisfactory,

the school districts are very likely to complain about the outlay that is involved in providing textbooks. Again, there is a matter of teacher assignment. Quite often it means the assignment of a teacher who is not specifically trained in the health field at all.

I am hoping that you will guide me into knowing what to do in approaching the problem of preparing our state course. As opportunity permits, I shall be glad to present some of our methods of approach, which are not unusual. As yet we have very little on paper that will go into a course of study. We have much which indicates the procedure, some principles, and some criteria which can serve as guides in selecting material and also evaluating material.

Chairman Bailey: Are you definitely placing the responsibility on the physical education teacher?

Mr. Kontner: Not at all. We are just now interesting a number of districts, usually the second and third class districts in employing special teachers who are very definitely trained in health education.

Chairman Bailey: How about a coöperative scheme such as we have been trying to organize in our thinking here?

Mr. Kontner: I think of it in terms of the dawn of the millennium. In my experience any program that depended upon the integrating scheme has not functioned. The teacher morale has suffered in a number of situations where we thought we were very careful in setting up the situation, because the teachers knew that they were not prepared to teach the subject. The pupils had a certain awareness, too, that teachers were not prepared, and it meant that the teacher's relationship was disturbed with the pupil in the classroom where she had major responsibilities.

In Pennsylvania, we have a classification requirement of all secondary schools one hour a week of health education. In addition to that, as a minimum standard we are requiring certain correlations which are rather indefinitely set up.

Chairman Bailey: Mr. Kontner's labeling of our fondest dreams as the millennium dawn, is interesting, if somewhat dis-

turbing. Do you think the suggestion made this morning is at all possible, that an energetic health education instructor in a high school might hope in the course of five or ten years to find health material appearing in the other departments?

Mr. Kontner: I think it is quite possible. If we can ever set up standards which will agree, I am pretty sure we are going to have teachers who will be prepared to do that type of thing.

Chairman Bailey: May I point out the difficulty that arises? We recognize an emergency in which we must put the responsibility for health instruction in the hands of one person, and yet we can all see very clearly that in a departmentalized system no adequate basic and contributory instruction can be given on that basis. Any long-range, truly valuable program is going to require years of concentrated effort, a great deal of faith, and we have noticed, a gentleman's agreement.

We have a very distinguished visitor, Dr. Peter, who has done health education work in the Orient. I think he has from his published material given evidence of some very brilliant ideas about making particulars lead to generalization. Will you tell us anything you wish as to ways of teaching health in high schools?

Dr. W. W. Peter, Director, Department of Health Service, Cleanliness Institute, New York:

I have had a number of points of contact with this problem, of how to get general concepts into the minds of children in such a way that it will lead to development of the matter in their minds. As you know, my first experience in that direction was in China. There of course we had a virgin field for experimental work, both in health education and its corollary psychology. For instance, only 5 per cent of the population are literate.

After spending a good many years in the Orient, I wish I could see a more militant spirit on the part of the students in this country than there is. In China they have a sense of destiny, a sense of heading somewhere, and all of these things you and I are trying to contribute toward their development, fit them to fulfil their destiny more adequately. The students

of China, have a deep sense of responsibility of leadership for national affairs, and so even to a child six years old you can make such an appeal as this: "Some day you will have great burdens placed upon your shoulders. You ought to do all things possible to make you last."

So the practical methods—of vaccination against smallpox, of immunization against diphtheria, of the practice of certain health habits—were all more or less militant calls to them to fit themselves for some day ahead.

Chairman Bailey: These remarks bring something we have neglected. You cannot teach a child to walk. You can put him in a good situation, give him something to walk for, but he must learn himself. See that he cannot get what he wants until he does talk, and he will talk. You are saying, give him the vision of what being physically fit will mean to his life work and to his fellowmen, and he will find his own way through many complications. We are extremely glad to have this brought out.

Summary Points from the Discussions of the Secondary School Section

These summary points developed out of the discussions and committee meetings of the Secondary School Section. Because of the limitations of time, not all of the important aspects of health education could be discussed to the extent that conclusions could be drawn. The following statements, however, represent the consensus of opinion within the secondary school group.

1. Health service and health instruction, including the cumulative health record, should be consecutive and continuous throughout the entire span of school life.
2. In the organization of the health program in secondary schools, provision should be made for every boy and girl to receive health instruction.
3. A health program or plan of instruction should be set up on the basis of local needs, and should be sufficiently flexible to meet changes in local situations. (General criteria for the formation

of plans of instruction and the selection of text books were presented.)

4. The principal, in any given school situation, should be recognized as the final authority in the development and maintenance of the school health program.
5. The best work is done when the principal of the school places the responsibility for the health program on a school health committee working through a health counselor or health coördinator. A good program should center responsibility in some agent and provide machinery to facilitate the coöperation within the school and community.
6. The material used in the large units of academic instruction within the curriculum should be carefully selected with a double objective clearly in view: One, the mastery of the specific subject; the other, the attainment of a definite increase in health knowledge and behavior.
7. The welfare of the child, rather than financial gain, should be considered foremost in importance in the management of school lunchrooms and cafeterias.
8. The functions of a school health service are:
   To determine the physical status of pupils.
   To establish pupil attitudes favorable to medical examinations.
   To refer children, when necessary, to private physicians.
   To advise school authorities regarding individual children, and school policies.
   To provide adequate nursing service.
9. School physicians should be given special training in the understanding of school problems.
10. Some plan should be instigated by which national agreement might be reached as to the objectives of school health education, and as to the terminology to be used within the field.

SECONDARY SCHOOL SECTION COMMITTEE

Dr. Edna W. Bailey, *Chairman*
Miss Ethel Perrin, *Secretary*

Mr. West J. Altenberg	Dr. Anita D. Laton
Mrs. Ora Hart Avery	Dr. Delbert Oberteuffer
Miss Mary E. Chayer	Miss Hannah W. Rowell
Mr. Floyd R. Eastwood	Miss Esther Sherman
Dr. Don W. Gudakunst	Dr. Ruth Strang

The Relation of Health to the Secondary Curriculum

Edward J. McNamara, LL.D., Principal,
High School of Commerce, New York

I welcome the opportunity of coming to you so that I may learn what you who have made a special study are doing in the field in which my topic is taken.

In considering this subject, I should like to direct your attention to very definite objectives in our secondary curriculum. I would mention four. Three of these are common to every high school, every secondary school.

The first objective of secondary education may be listed as the development of intellectual power. This development is usually tested by examinations. If a college wishes to know whether or not a candidate has acquired sufficient intellectual power, it asks that candidate to take the College Entrance Board examinations. Of course, that is rather a rough measuring stick, but it is one of the best we have.

A second objective is the development of moral power. Every secondary school tries to develop the moral power of its students, and this expresses itself in what we refer to as character.

The third objective is the development of physical power, and that must be developed by every secondary school. Physical power is tested and expressed in health.

I mention also a fourth because it is primarily the objective of schools such as the High School of Commerce. It is vocational power. We are required not only to develop these other three powers but also to turn out a young man who is vocationally efficient to hold his own in the business community.

Health and Education

Since the development of good health is a definite objective of the secondary school, a very close relation exists between health and education. May I point out also that in order to

accomplish these four objectives, we have to realize that they are interrelated, and that sometimes intellectual power is retarded because the physical power has not been built up, and sometimes the moral power is retarded. Sometimes the moral power has to be used to build up the physical, so that there is an interrelation of all of these four objectives in secondary education.

Good health is most vital to a boy or a girl following the secondary curriculum. It is not an easy physical task nowadays for young people to stand the strain of a high school education. The school day is usually from five to six hours long. The assignments that are given for home work usually require from two to three hours of rather concentrated attention. The syllabi established by the state authorities are so comprehensive that such assignments are made necessary.

We can see the influence of good health in many aspects in our secondary curriculum. For example, not long ago in our school we gave scientific tests to approximately 3000 boys to determine just how well they were equipped with regard to hearing. We found a surprisingly large number who were deficient in hearing. When a boy fails in modern language, sometimes it is because he does not hear properly, and cannot imitate the sounds or develop the proper accent. We notified the modern language teachers of these defects so that special arrangments could be made to help those boys.

For years I was head of a department of stenography in the high schools. I found frequently that boys and girls would go through three years of high school trying to become stenographers, and it was not discovered until the last year that these pupils were failing in their work because they could not hear properly. Such pupils have to be taken out of the stenography course as soon as that defect is realized.

Health and Vocational Guidance

Every school tries to find the aptitude of its students, to find out what is the best thing for each to do. In our secondary curriculum, health influences the matter of vocational guidance. For example we have to advise boys with poor eyesight

against taking up a career as certified public accountants. Such men have ruined their eyes through concentrated attention to records under artificial light.

This week the state examinations are being held in all high schools. In reference to the way in which health affects the secondary curriculum, I would say that before these examinations are held, I call my school into conference during assembly. I tell them that they have done their studying, that the teachers have offered their coöperation and done everything possible to prepare them for their tests, but that there is one factor more for which they are responsible, and that is coming to the examination in good health. That is in their hands and nobody else can do that work for them. By that I mean that they must get into training for these examinations and make sure that they do not eat food that is likely to disagree with them; if they come to an examination with a headache or with indigestion, they cannot do themselves justice. These examinations must be taken at the time they are scheduled and if a boy fails because of that, very little assistance can be given to him. So the question of health is important.

Absence Wasteful

As a high school administrator I am also interested in the factor of health because every student in the high school costs the city of New York approximately $200 a year. When a student through unnecessary absence or even through necessary absence loses a sufficient amount of work to make it necessary for him to repeat the term's work, that money has to be spent again. Each repeater means a tremendous waste of time and money.

A boy who is absent for five or ten days falls behind in his work. The wheels of progress move very rapidly in our secondary schools. The work is laid out week by week and day by day, and each minute of the time is planned. At the end of about two weeks there is an opportunity for review. But the boy who misses a week at a time finds a gap in his mind in the development of that subject. It necessitates extra after-school work on the part of our teachers for conferences to help him make up the work that he has missed.

There is a tremendous educational waste in absence caused by illness. In my school of approximately 3000 students, our average absence is about 5 per cent every day—150 or more. Some of them may be kept out for business reasons; for instance, the parents may want to send them on important errands. But the vast majority are earnest students who want to come to school. We have done everything that we can to impress parents and students with the necessity for regular attendance. We have checked up very carefully upon truancy, and out of the 3000 there are only 51 who have been found playing truant. So the balance must be largely due to illnesses.

One of the things that we have found in our health survey of the school is that the absence on Monday is always greater than on any other day. The reason is largely that parents take their children out on picnics, excursions, or visiting, and there is an unrestricted indulgence in foods. They take them in automobiles, stop at the hot-dog stands and give them lemonade or soda pop, and we find the next day that they are indisposed. Our campaign has to do with the education of the parents as well as the children, and to us it is a very important matter.

In the secondary curricula, health affects the athletic program which every secondary school feels that it must develop. In some schools this athletic program takes the form of encouraging as many boys as possible to take part in the various sports—football, baseball, soccer, tennis, track work, field events.

Before any one of our boys can participate in any of the strenuous exercises each has to get a doctor's certificate that he is physically capable of participating without injury to his health.

The progressive athletic program has every boy and every girl in the secondary school participating in athletics, as a matter of building up physical health, and for reinforcing and developing the moral side of character. How does the secondary school undertake to attain this objective in connection with health? Ordinarily I would say there are five coördinating agencies in the secondary schools; there are in my school.

First are the hygiene classes; pupils must be taught the essentials of hygiene.

The Plan of Instruction

In that connection I would like to give you a brief survey of our eight terms of hygiene instruction. The boy receives hygiene instruction once a week, every week that he is in the high school. In the first term we deal with fundamental habits of health relating to the body parts—bones, muscles, skin, organs; these are habits with regard to exercise, ventilation, foods, the use of alcohol and tobacco. In the second term we undertake to explain to him something about the structure and biology of the teeth, and causes and prevention of decay. The third term deals with exercise and health. The fourth term takes up the matter of circulation; the pulse, blood pressure, blood composition, lymphatics, and diseases of the organs of circulation. The fifth term takes up dietetics and digestion, the composition of foods, nutrition, nutritional standards for the human body, and fuel values. The sixth term takes up the nervous system, and deals also with the skin and the kidneys. The seventh term takes up bacteria and germ diseases. The eighth term, just before they go into business, takes up the conservation of health and life through first aid, prevention of accidents, fire prevention, and some industrial hygiene. The hazardous industries are explained, industrial diseases, laws and practices for the protection of the worker, safety devices used in industry, and health hazards causing accidents.

The Cafeteria

The second agency for health in the secondary school is a lunchroom or cafeteria. We are located in the heart of New York, surrounded by a great number of small candy stores and lunchrooms where the standards of sanitation and the quality of food are very low. In order to offset the tendency of the boys to patronize these places we established our own lunchroom, owned and operated by the students, and serve approximately 2200 to 2400 students every day. A staff of

eleven employees prepare the food under the direction of a dietitian. A member of the faculty acts as supervisor to insure that only the best quality of food is offered our boys and that the highest standards of hygiene and sanitation are used in its preparation.

This enables us to keep our boys within the building, to advise them on the choice of their foods through two teachers assigned to the lunchroom every day to discuss these things with the boys, and we find that it is a very wholesome activity in our secondary school work.

I do not say that if we advise a boy not to overload his lunch with sweets that he is going to take our advice. We have not arrived at the stage of prohibition, with regard to eating, but we do discuss it in our hygiene classes, and when we find a boy generally doing that sort of thing, the teacher usually talks it over with him. One characteristic of a commercial education is the opportunity to apply the theory that is taught. In our commercial work we are constantly giving him theory and principles that can be immediately applied. If we teach him typewriting, it can be applied immediately, so can stenography and bookkeeping.

I do not think there is anything that can compel boys to accept a balanced diet. Too much stress will drive them outside to undesirable places where they can get the things they want.

Our third coördinating agency is the physical training department, where we preach the value of exercise and we follow it up with application in practice. Our physical training department has these boys three to four times every week. The exercises given have two general characteristics: physiological exercises and corrective exercises for various faults that usually develop among young boys.

The Health Education Department

The fourth agency is our health education department, a department to which a full-time teacher is assigned. We have secured the coöperation of six practicing physicians in the city of New York who contribute their services to the school,

and we have every boy given a medical examination without charge. These medical examinations are not superficial. They are thorough. The physicians not only examine for the usual things, such as vision, teeth, and hearing, but also for cardiac, glandular, neurotic and orthopedic conditions. Any time that I wish to know the physical condition of a boy I can send to my health education department and ask for the record which shows his physical defects and whatever has been done in correction.

This very important phase, developed within the last two years in our school, does not however tell the whole story.

The next and fifth agency is that of follow-up, to induce these students, after they know their physical defects, to correct them.

With regard to the policy established by the school, I feel that just as we refuse to graduate a boy who is deficient intellectually, or who is deficient morally, he should not be graduated unless he has intelligence enough to remove or make some effort at removing a physical defect. At times I have held up the diplomas of boys who have been indifferent in this respect, for example, who have refused to have their teeth attended to. I have consulted with parents and told the parents that I would not grant a diploma to a boy who is deficient in that part of his education. The boy usually has come around and has had the proper treatment for his defective teeth or ears or whatever it may be.

We have these five coördinating agencies, each supporting the other, and all making for a sound mind in a sound body.

Equipment for Cleanliness

Another thing we are attempting but have not yet succeeded in doing, is to provide soap and towels in the boys' school. I think there are some girls' schools that have succeeded in doing this, but it is very difficult. At first we installed boxes on the wall in which they could put a cent and get a towel and a cake of soap; but those boxes were maltreated. Our building is used day and night by two different organizations, as well as a number of outside organizations. Finally we turned to another

coöperative enterprise that nearly every secondary school has, our general organization store. This store, owned and operated by the students, sells to the students sporting goods, toothbrushes, toothpaste, and such things at reduced cost. When the hygiene teacher puts on a drive in connection with teeth, there is usually a good deal of advertising throughout the building, of toothbrushes which can be bought by students at a special reduced price in the G. O. store. In addition the store sends out salesmen to canvass the classes. The same thing is true with a good many other things, so that we have coöperation in that way.

Next September I shall be able to put the requisites for cleanliness into our boys' lavatories. I think I have a box that will stand the tampering and destructive activities of those who are anti-clean. But it is so useless to preach cleanliness and then send the boys into the lunchroom without giving them an opportunity to wash their hands.

In our physical examinations, we do not insist that the student be examined by our doctor. If he prefers, he may go to his own family physician and bring a certificate to us, but we find that frequently the doctor will depend upon his general knowledge of the patient, and give him a clean bill of health without a very thorough examination. So we prefer to have the work done under our supervision.

Some Figures on the Physical Examination

I have a chart here which gives the story of these physical examinations. The register was 2915. The number of boys examined was 3583 which means some boys were examined two or three times.

Some of the totals are interesting. For example, in personal appearance we had 89 boys marked unsatisfactory this term, and my health officer reported that of those 89, 25 had corrected their defects of personal appearance. It would be an easy matter to pad figures like this, but the man in charge is very conscientious and deeply interested, so I have full confidence in these figures.

We found 608 boys out of approximately 3000 that have

defective vision. As a result of our follow-up we had 244 that had vision corrected. I am not saying that they are under treatment, but they have corrected their vision—obtained their glasses or have done something else so that the job is complete.

We had 499 out of 3000 defective in hearing. Of those boys 211 were receiving treatment in the League for the Hard of Hearing, or in a clinic. That is one of the most important things that we are attempting to do, because frequently our boys do not know that they are defective in hearing, or their parents are indifferent as they do not consider it as very important, yet if allowed to run it does result in total loss of hearing. So if we have accomplished 211 corrections out of 499, I consider it a good term's work.

We had 1452 with tooth defects needing attention—approximately 50 per cent of the students showing defects. Of these, 434 cases were treated and discharged by the dentist.

There were 640 boys that needed some attention with regard to tonsils. We had 135 of these cases completely treated.

When you realize the resistance that is normally placed in the path of the school by parents who say that there is economic inability to undertake these things, you can realize the magnitude of the task.

With regard to cardiac defects, there were 267. Special provision has to be made for those boys. We give them special passes to use the elevators or we place all of their work on one floor. We try to see that they do not indulge in overstrenuous exercises.

We had 44 cases of pulmonary weakness.

We had 116 orthopedic cases where corrective exercises were prescribed.

The average physical training teacher has not realized that he must get the active coöperation of the boy rather than make physical training exercises a matter of compulsion. When I talked to my physical training men about setting apart special rooms and making separate classes for corrective exercises, they said, "These are of no avail unless the boy will undertake to correct the thing himself." If a teacher of geometry or of science can instill in a boy an interest in doing and initiating work for himself, then our teachers of physical train-

ing and our teachers of health education ought to be able to interest him in corrections.

Informing the Parents

When a boy's teeth are found defective a letter goes out to the parent something like this:

"On making an examination of the teeth of your son, the school dentist found dental defects. Good teeth will promote good health in your child. It is very important that his teeth should be in good condition. Attached is a chart indicating the needed dental work. Will you please take your son to your family dentist and have the work done as promptly as possible? If you have no family dentist we shall be glad to refer you to a dentist whose work we recommend and whose fees will be nominal."

It is an easy matter to simulate illness. We used to have a great number of boys excused because of some indisposition, but now we send them to the health officer and their temperature is taken, and they are looked over rather carefully. Unless they have a pretty good case they do not insist upon going home. If they do go home they are given a letter.

After our health examination we send this letter home:

"In making routine physical examinations of our students we find that your son has some slight defect indicated by the check." Then we list all the different items—hearing, sight, tonsils, underweight, overweight, faulty posture, heart condition, lung condition, nervousness, amnesia, anemia, organic, functional. "In our judgment an examination of your son by your family physician, or dentist, or oculist, is advisable. We shall be pleased to have you or your physician come to us about your son's health."

I do not know whether or not I have been telling you things that are commonplace and obvious, but I am very much interested in this program to turn out young men who are the embodiment of good health, and in sending into the business community young men who know how to take care of themselves physically.

One of the things that we strive to do is to implant in the mind of each man a desire to continue his education, a fond-

ness for literature, and an interest in science that will carry him on through his life. In the elementary school and the junior high school the student has a passive interest in his physical development and his physical welfare. In the secondary curriculum that passive interest must be turned into an active interest, and this program is made up for the purpose of developing that active interest in his physical welfare which will carry him along when he goes out into life.

AT WORK IN SPECIAL SESSION

Health Education in Teacher Training Schools

> ". . . the future of the health education movement depends upon the teachers more than ever before."
> Chairman Bigelow.

"IN opening the discussion," said the Chairman, Dr. Maurice Bigelow, "I should like to call attention to two or three very significant paragraphs in this significant program. The first, of very great importance, I think, in teacher training consideration, is the purpose of the original opening meeting of the Child Health Organization in 1920. The purpose was to discuss the question: Can health be taught children, and if so, who can do it best?

"There was group agreement to the statement that health can be taught, and that the main channel for this teaching must be the teachers of the country." Dr. Bigelow then designated the other significant paragraphs to which he had referred.

Dr. Maurice A. Bigelow, Professor of Biology and Director of Practical Arts, Teachers College, Columbia University, New York:

In the four conferences held during the time that has intervened between that first conference and the present one, there has been more or less progress as regards ways in which the teachers can teach health and how health teaching can be organized.

The purpose of the present conference is: To examine the school curriculum in all aspects related to health, in the light of our best present knowledge of child development.

I have the feeling that the future of the health education movement depends upon the teachers more than ever before. We have reached the stage at which, if we are going to put

health education in our elementary and secondary schools, we must train a vast body of teachers and put them through the institutions of college grade to get specific training for health education. I think we ought to keep in mind in all discussions, that the health curriculum in a training school for teachers of college grade consists of two aspects: There is the health teaching of the students—giving them facts in various ways either in the classroom, the laboratory, or indirectly through activities such as physical training; and there is the health service. In the meetings on health service the discussion is to center around the services of the doctor, nurse, dental hygienist, psychiatrist, and psychologist, as related to cumulative records in teacher training institutions.

I am going to ask Dr. Andress to speak especially of mental hygiene in its relation to health service, because that is the field to which he has given special attention.

Dr. J. Mace Andress, Editor, Health and the School, "Hygeia," Newtonville, Massachusetts:

Since mental hygiene has so many different meanings, perhaps I might tell you first of all what I mean by mental health. I assume in this case we are thinking more or less of the normal individual.

Two or three things stand out in my mind as being characteristic of the person who is mentally healthy. It seems to me that such a person is, first of all, one who is able to meet the problems of life with a fair degree of success. Second, in meeting those problems of life, he should meet them with a minimum of strength. A man in the street may be getting along, supporting his family, doing his daily work, and yet he may be pestered by fears, or obsessions of various sorts. He is carrying a heavy burden. At the same time he appears to be meeting his problems, outwardly at least, with a fair degree of success. In the third place, it seems to me the person who is mentally healthy gets what we call, in the vernacular of the day, a "kick" out of life. He finds life satisfying and worthwhile.

I have tried to think of a healthy personality. I sometimes think of Theodore Roosevelt as a good example. It seemed

as though every hour of his day was filled to overflowing with a genuine satisfaction in life. After being in the saddle all day, he would come in at night and write in his diary that he had had a trying day and had worked hard, but life was worth living. He had fine spirit—what we might call "morale in life."

When we begin to think of the mental health of the teacher, perhaps you might think for just a short time of some of the traits that we find in the teacher, traits that would indicate she is not in good mental health. I do not want to focus on the negative side, but for a moment let us think of a few such characteristics. The great mass of teachers, of course, are optimistic and helpful and I believe have fairly good mental health, but some of them show signs of maladjustment.

Life is full of problems, and they begin with the little child as soon as he opens his eyes. As soon as he cries he begins to make a certain adjustment to life, and the way he responds when he cries is going to determine what he will do the next time he cries. That little child has to learn to get along with his father and mother and sometimes does not take the best method. He may use tantrums or lying; then he goes to school and has to learn to adjust himself there. When he gets to high school, it is a very difficult place.

We should look with sympathy on adolescents because all the things that seem so silly and unbalanced are merely expressions of their attempt to adjust themselves to the world in which they live. A new mental condition is arising and new problems in life, and they do not know exactly how to meet them. It is a constant adventure.

Sometimes the teacher has not met her own problems successfully. Perhaps, for instance, she did not marry—a natural desire on the part of every human being. Some people are able to face such facts, and get along very well in life, and some are not able to, and their disappointment expresses itself in various ways.

Perhaps the teacher has not the right attitude toward children. She is not interested in the child, but she is interested in the subject. A teacher in good mental health will love her profession; will love children; will have faith in humanity. We cannot expect a sweet and wholesome personality to grow up

under the shadow of a teacher who has not a wholesome philosophy of life, love of teaching, and love of children.

Then there are some teachers who do not understand essentials. I think if there is any one thing that makes me discouraged when I see teachers at work, it is the fact that they do not recognize fundamentals.

The Importance of Essentials

I find that frequently when a composition is written and handed in to the teacher, the teacher, instead of looking at the composition and realizing that here is a gem in the rough, a little creative impulse, however crude, looks at it and says, "Oh, John, look at your margin! How many times have I told you to have a margin exactly straight?" Or she says, "Well, look at this grammatical error! John, if you grow up and write English like that, what will become of you!" The individual goes away with a sense of failure. There is far too much of that in the schoolroom.

She should say, "John, that is an interesting story, and you have done this and that, but I think you could make it a little better if you would remember this next time."

The business of the teacher is to see that boys and girls succeed. The perfect school system, would be one in which nobody failed. Of course, I do not mean that there should not be little failures, because I think we need those in the process of education. Education should be something of an experiment, and if we experiment we ought to have some failures, and we ought to learn how to meet failures. When we have a failure, we should use it as a basis for further success. In that sense no failure is a failure.

What are some of the things essential in children's work? That children shall grow up to be successful with an attitude of success. They should be honest. They should be emotionally balanced. They should have appreciation of those things that are good, and sweet, and lovely, those things that are important.

Sometimes in our education we teach boys and girls to love the things they ought not to love, to use deceit, to cheat, to

lie and wiggle around a situation in some way rather than meet it fairly and squarely. They do not love the things we would like to have them love.

When I speak of mental health in teacher training, I think I shall have to say it is more or less nonexistent, but there are pieces of it that appear here and there. First of all we ought to be very careful about the people who get into the teaching profession. Thorough physical examination is necessary and that has a great deal to do with mental health. In many teacher training schools we do not do enough with those examinations. The physical condition of a person is very important. I have known individuals who had very bad teeth, who felt their inferiority to such an extent that it interfered with good mental health.

We should have, if possible, not only a physical examination, but a mental examination, testing the mental ability of the students. I had this experience with one freshman class: I gave them a simple mental test, and then blocked the class off in a graph, into quarters, first, second, third, and fourth. I followed this class through from the time it entered school until it was graduated. One thing I found was that about 80 per cent of those who left school for some reason or other, happened to be in the fourth part. Some of them found they couldn't carry the work. Some got into trouble from the point of view of discipline. Some decided they wanted to go into something else. Different reasons were given.

Of course, we know mental health is something more than having a high degree of intelligence. Dr. Wells, of the Boston Psychopathic Hospital, has said that the worst cases he has found have been among those who have a high degree of intelligence.

I think we should have interviews with students entering schools to find out whether they have the right attitudes toward the teaching profession, whether they love children and temperamentally seem to be fit for the work they are undertaking. In one college they admit no person until that person has been interviewed by three different members of the faculty and approval has to be unanimous or the person is not admitted. I consider that more worth while than the formal examinations

we give students. Then, when they are admitted, we should teach them in such a way that they will have good mental health. That means the school will be an enjoyable place, a place where they can be successful. We should have our work graduated to the capacity of the student; it should be of such a character that he is able to achieve success. That means he should have enough time for rest, recreation, and all those things that contribute to happy living. If the pupil is going to be happy, and happiness is perhaps the great ideal in mental health, we should be careful to observe signs of a lack of mental health. One of the signs is that the student suddenly begins to fail in her work.

We should have somebody on the faculty to whom students may go to talk over their affairs. That person preferably should be a person trained in psychology. I wish we had a physician who could do that, but most physicians are not properly trained in that field and come in contact with the school so little that it is impossible. A logical person in a teacher training institution would be the teacher of psychology. Someway, somehow, we must have on the faculty of the school somebody, preferably a trained psychiatrist, to whom students can go.

Chairman Bigelow: It was not a mere accident that I called on Dr. Andress to open the discussion with mental hygiene in relation to health service.

In our schools and colleges, and especially in the teacher training institutions, the question of mental health of the students and the preparation of the student for dealing with pupils with regard to problems of mental health has been neglected and very often put off until the graduation period, with the result that most people do not get it.

The general tendency on the part of college physicians primarily interested in the health of the students, is to get at it very early in the freshman year. Many people interested in health recognize that a large number of mental problems can be traced back to fears. Moreover, mental hygiene aims to fit people to get along with one another. I hope you will discuss

the problem from the standpoint of cumulative records. Miss Edwards, will you suggest how we should orient what Dr Andress has said relative to mental hygiene and health service, with reference to cumulative records?

Miss Margaret M. Edwards, Staff Associate, Division of Health Education, American Child Health Association, New York:

I think Dr. Andress has given us a good start in that respect. His suggestion in regard to advising with the students, indicates the points we might consider.

Dr. H. H. Mitchell, Medical Director, School Health Study, American Child Health Association, New York:

Should there be, as a part of the regular physical record, a record of the failures, of the maladjustments of the student? It would seem to me better if some counselor who has a responsibility for individual students should have his own confidential record.

Chairman Bigelow: These cumulative health records were thought of by the Organizing Committee as covering the physical, mental, and social sides of the individuals. The physical sides of records are well worked out. It is simply a question of what the medical examiner and other people dealing with the physical side have time to put in the records. The question of the mental record is a serious one. Keeping mental records confidential is very important. At Columbia we guard mental records very carefully. Our legal advisers have said we should be exceedingly careful and should as far as possible keep them in code form, because of the general tendency to gossip about mental disturbances more than physical disturbances.

Does anyone in the group know of any institution that is using a card system or record system for keeping the records of the mental health of the students? Does anyone know of any system for keeping the records in the hands of personal advisers, or deans?

Miss Irene M. Steele, Principal, Campus Elementary School, Director Student Teaching, State Normal School, Towson, Maryland:

At our last faculty discussion we discussed the problem of gathering data. It is not left to the psychiatrist but to various members of the faculty. They are being asked to record facts, statements of what has happened, with a little opinion about it, if possible, and that is to be forwarded to the chairman of the committee.

We had a lively discussion as to what should be done with the record, some feeling it should be secret and others thinking that if it were to be of value, it should be available. The director of student teaching was mentioned especially, because any sort of abnormality or trait which needed special attention is usually evident at the time of the student teaching, if not before. The question of how they are to be used is left open. We had only about two people who felt they should not be available to all members of the faculty if the faculty member comes with a special reason for wishing to see them. We are taking exception to the matter of extreme secrecy, feeling that the record is of no great value unless it is to be used, and it cannot be used unless those working with the students know the facts in the case.

Miss Hally Flack, Field Worker in Child Development, Institute of Child Welfare Research, Teachers College, Columbia University, New York:

We made a ruling that information which the health and social worker considered confidential should be placed in a sealed envelope and filed with the rest of the record.

Dr. LeRoy A. Wilkes, Director, Division of Medical Service, American Child Health Association, New York:

It seems to me it is rather dangerous procedure in any field to pass around a complete record of a child. We speak of facts. Are we sure they are facts? One teacher may report that a child is peculiar. The next teacher, who might not have noticed anything peculiar (it might not really be there to notice) might be influenced. There is the danger. If the first

teacher reports the child as being peculiar, the second teacher is predisposed to pronounce him peculiar when he comes into the room.

I think it is well that all these opinions arrive separately and then that we hold off the pronouncement of the child's peculiarity until we get several confirmatory agreements. I personally would be rather inclined to follow the suggestion that Dr. Mitchell had in his mind that we have an adviser, like the dean of men, or the dean of women, who could get the cumulative data and consult the various people before the final pronouncement is made. I would wait until a teacher came and said to the adviser, "Has anybody else said anything about Miss Smith?" or whoever it might be. Then the adviser could consult the cumulative folder and discuss the fact that somebody else had noted something peculiar and it is time that somebody in that particular line, physical, mental, or emotional, investigate.

Miss Anette M. Phelan, Instructor, Health Education, Teachers College, Columbia University, New York:

I am familiar with the procedure in a private school for children, in which there is very close coöperation between the teachers and the parents. Here every person puts down evidence. No teacher ever labels a child as peculiar, but every teacher who sees an evidence which might lead to a decision one way or the other, records this evidence on the child's records. This is confidential just so far as the interests of the child call for treating the material confidentially.

The teachers of the school and the parents of the children have a teacher-parent confidential conference regarding evidences which the parent gives of certain tendencies of the child and evidences which the teacher gives, and then they work together to correct that. It is practically the same system that is used in case work. The people who are interested in a given case, who are to help the individual, must know the evidences.

It seems to me that thing does not need to end in primary or elementary school. It would be very profitable at the high

school level and I have seen it work profitably on the level of the teacher's college.

Chairman Bigelow: Am I right in thinking that it is the tone of the discussion that as far as records of the mental health of the students are concerned, we should accumulate such records, but it is desirable to handle them in a much more personal way, probably, than the physical record? Is that the general consensus of opinion?

Dr. Mitchell: Do we want to go a little further than that? In a teacher training institution there should be one person who is adviser or counselor to the students and any information that is given should be given to that one person confidentially, not to every teacher who has the student.

Wouldn't it be well to raise the question whether it should be more than a dean of men or women maybe, with a hundred or a thousand pupils to advise? Another point to consider is the number an adviser can take care of successfully. You have got to have some kind of an organization, and if there is any record kept, it should be kept by that person who is responsible.

Chairman Bigelow: You want it to read in the recommendations, "There should be a personal adviser who should have on the list no more cases than he can personally deal with, and in a small institution it might be the dean."

Miss Flack: Dr. Andress suggested that the psychiatrist or the psychologist would probably be the person. I should like to ask Dr. Mitchell, in speaking of personal adviser, would he have someone other than the psychiatrist?

Dr. Mitchell: I would raise the question of whether we need to specialize to that degree. I feel that we want a general practitioner who could look after the welfare of the students, their mental development, how they are getting along in the classes, and who would also be responsible for the health problems. He would see whether they are following out the advice of the specialist on the medical side, and the other specialists. If they need a psychiatrist, they should go to a psychiatrist,

and the counselor would so advise, but I think we have to be very careful to keep it on the general practitioner's level.

Dr. Andress: The person who is the adviser should have as much training as possible and the personal qualities which make it possible to appreciate, understand, and get along with the students.

I know one girls' school with which I have been associated, in which we have a psychiatrist. I do think we ought to have somebody, if possible, who has some training along these lines so as to understand what to expect and how to deal with some of the simple, ordinary things. It requires a little technique. I suppose it will vary with different institutions.

Chairman Bigelow: The great majority of the cases, too, are not cases for the psychiatrist, but are cases of mental hygiene.

Miss Pauline B. Williamson, Chief, School Health Bureau, Welfare Division, Metropolitan Life Insurance Company, New York:

Does not this resolve itself into the problem of how much and what information are we going to give to the student, to the faculty, to the parent, and to the special counselor? At present students all over our country are being given a certain amount of information, and certain records are being used for that. In some places we are giving them grades like A, B, C, and D, on reading, writing, arithmetic, and on health. What do those grades mean? What relation do they have to the student's mental health? Do they mean anything, and what use are we to make of them? In giving the student a Grade A, what explanation are we to give him and how much information is good for him; how much should his parents be given?

Chairman Bigelow: The only answer we can give to that is that somebody has to centralize it. When a case comes to my attention, I am in the habit of finding out what the college physician knows about it, what the personal adviser knows, and what the instructors closest to the student know. Sometimes I have asked someone to sit in with me in formulating the information and in giving the information to the individual.

Miss Bacon will speak about the general health examination and its opportunities.

Miss Mabel Bacon, Associate Professor, Michigan State Normal College, Ypsilanti, Michigan:

In the fall, at the opening of college, we examine every student. Students there four years have four complete examinations. We have four outside physicians employed for that time and the staff of the physical education department assists. We examine eight hours a day during that period and we use our pupils majoring in physical education for such work as the weighing and measuring. We examine eyes, ears, nose, throat, chest, posture, and feet, and take height, weight, and spirometer test, and make an urinalysis.

After a girl has gone all the way through this examination, she sees Dr. Snow, the head of the health service program, for final summing up of the results. If there are a great many things on the girl's card showing she needs a long interview, she is given an appointment later; those who are quite all right are given a limited amount of time immediately. At Dr. Snow's office, girls arrange for corrections to be made throughout the year.

We have a small hospital in connection with the college known as Health Cottage. Dr. Snow has office hours there and on Friday every week we have an oculist who takes care of the refractions, altering and ordering glasses as they are needed for students. Last year we also had a nose and throat specialist two hours every afternoon.

In Dr. Snow's check-up, the girls are advised as to what gymnastics they may take, anything from the full activity program to the corrective class, or resting for one hour a day. All through the year the girls are checked to see whether they have had the necessary corrections.

We have close connection with the appointment office and get many of our corrections by telling the girls that all will appear on the card at this office. When they know that the superintendents may find defects uncorrected, and that chances of getting a good position are thereby lessened, many corrections are made.

Any report coming in from a training teacher where the girls do their practice teaching that a girl seems tired, has frequent headaches, or seems listless, is recorded by the appointment secretary and the girl is sent for by Dr. Snow.

The graduation list is sent to Dr. Snow and that is rechecked against her files. Again girls may be sent for, and asked why they are not in the best physical condition. That has had a great effect upon the girls and they go over to Dr. Snow's office and beg to have these unfavorable records removed, some having had the corrections made at the very last minute, in order to get that corrected record in the appointment office.

Miss Edwards: We have all heard a great deal about the educational work that Dr. Snow does in connection with the health examinations. Many people have overlooked these opportunities for instructing the students when the health examination is given, or immediately following it. Can you tell us more of this?

Miss Bacon: All through the examinations the aim is to educate the girl, not simply to get records. All the people making examinations are doing it from that point of view, talking it over with the girl, telling her what the defect is and what is necessary for her to do to put herself in the best condition. Of course, that is done more intensively when the girl has a personal interview with Dr. Snow. We also have close coöperation with the dean of women. There is no rule or law by which we may require students to have corrections made. We do put a certain amount of pressure on them.

Miss Edwards: What is the reaction of the girls toward having appointments to positions held up to them so strongly? I am wondering if they would think of the appointment rather than the correction.

Miss Bacon: That is only necessary for the small number which has not been reached in other ways. There will always be a few people who will not be reached through the channel of education. Of course, personal hygiene for students is required in all departments of the college. In the beginning of the personal hygiene class they are sent to the physician's office for their own examination record, and bring it back to

the health education teacher. The personal hygiene course is then based largely for that group on these findings. They copy from their own cards and ask about things they do not understand to take this information back to the hygiene teacher.

Chairman Bigelow: That is good follow-up.

Mrs. Walter McNab Miller, Associate Director, Division of Publications and Promotion, American Child Health Association, New York:

I should like to raise the question as to whether it is not a fair thing to consider the health of the teacher in making appointments. I know in one state there is a state law in which a teacher must have a certificate in regard to health. They have to have a certificate in everything else and in view of the increased recognition of health in the efficiency of the teacher, I wonder if we will not come to recognize that as being as important as passing an examination in arithmetic or any other subject. I think it is a good thing to consider as a matter for efficiency in the work in which she is going to be engaged.

Miss Bacon: In connection with not graduating people, or with dropping them, it works out practically that after conference with the doctor many are dropped each year; but there is no set, hard and fast rule that if they do not do this or that, they are automatically dropped. It is an individual matter.

Chairman Bigelow: In the case of elementary and secondary schools where the teacher has to be on duty so many fixed hours every day, that is a little difficult, but in teacher training institutions we have to recognize there are some very efficient people on the staff who would be rejected by medical examination.

Dr. Fredrika Moore, Pediatrician, State Department of Public Health, Boston, Massachusetts:

At Salem Normal School, which we are using as an experiment station for the other normal schools, we have set up certain standards which are rather vague, but which, we are finding, are more or less satisfactory.

At the examination in the fall, made within a month after their entrance, we divide the students into four groups. This physical examination is made according to a form prescribed by the school by a physician appointed by the principal working in coöperation with the director of physical education.

Those in Groups A and B are accepted without condition; in Group C they are accepted under certain conditions; in Group D they are not accepted, unless at the discretion of the principal a student in that group is admitted to a special course.

Group A signifies a satisfactory physical condition and includes:

1. Candidates in whom no physical defects are found; and
2. Candidates showing previously existing defects satisfactorily corrected.

Group B signifies candidates in whom defects exist but are of such nature as not to interfere with the regular performance of duties, and includes:

1. Candidates showing defects already under treatment;
2. Candidates showing defects clearly remediable who agree to take steps for prompt correction; and
3. Candidates showing organic defects of such degree as not to prevent the full carrying out of the requirements of the curriculum and of the teaching profession, without injury to the student.

Group C indicates a "conditioned" group to be accepted only after the "condition" is removed, and includes:

1. Candidates showing clearly remediable defects not possible of immediate correction (this condition may be carried for any length of time within the first school year, at the discretion of the principal after consultation with the school physician); and
2. Candidates showing apparently non-remediable defects of such character as to leave in doubt, after repeated examinations, the probable effect upon the student of the school work or of teaching as a profession. (This group may be accepted either on the advice of a specialist approved by the principal and school physician, or after the student has successfully carried through the work of the first term as a trial of endurance.)

The fourth group, D, signifies that candidates may not be accepted unless by special decision of the principal, and includes:

1. Candidates showing evidence of active pathological conditions which would demand modification of habits of living; and
2. Candidates showing non-remediable or organic defects requiring such modification of habits.

Of course, this is rather vague, but we have tried it out for several years and find it very satisfactory and other normal schools in the state are going to adopt this classification next year.

Chairman Bigelow: It is evident that in the application of all such methods of establishing standard procedures as those described by Dr. Moore, caution and prudence are needed. Especially would this be true, perhaps, with regard to including records of mental health with the cumulative health record.

We all feel the importance of the mental health of students in the very broad general sense, quite independent of mental conditions which we might characterize as disease. It is my impression that the general feeling of this section is that any cumulative records of mental health of individual students should be handled in a very personal way—either by the physicians concerned, or by the psychologists, or the dean of women or the dean of the college—to put it in general terms, by someone who is a very personal adviser. There are grave dangers, as well as legal ones under some conditions, in making mental records of students available so that they may become public property—more danger than on the physical side. We feel more than ever the necessity for having a kind of super-dean with limited numbers of students who could give attention to summarizing the various phases of the health of students.

We have not given extensive attention to the question of physical examinations, because that is a field that seems to have been better covered. The form of record is becoming more and more standardized by college physicians who are dealing with it.

A further question arises as to how the student is going to be taught to use his own experience in personal health service

while in the training school, and carry it over when a teacher in the elementary and secondary school. As I see it, the hardest part of the work in teaching is to decide what to teach and how to teach.

Miss Wyman will give us an outline of what they are doing in Louisville on the absence record study of teachers-in-service.

Miss Mary May Wyman, Teacher, Health Education and Nature Study, Louisville Normal School, Louisville, Kentucky:

This work primarily was not done by the normal school. I happened to be chairman of the committee. The work really was an outgrowth of the Chicago Health Education Conference; I do not believe the American Child Health Association is conscious of that fact. One of the things under consideration there was that teachers should have sick leave, and it so happened that I had lost six weeks' salary that spring for being out the first time in ten years' teaching experience.

One of my best friends was president of the newly-organized Teacher's Classroom Association, so I had no difficulty in persuading her to let me undertake a piece of work and to help me to do it. We have been doing it for three years. This year I think our report is sufficient to talk about. Our earliest report merely recorded conditions existing in Louisville.

We did not know what the average absence was. A few years before, in 1917 and 1918, the only time Louisville ever had a floating population of teachers, we had been granted five days on the basis that you could have one day a month or five days a term, but if you didn't take it the first term and were seven days ill the second term, you got five days' pay, and lost two. That sick leave was foolishly given without the necessity of a physician's certificate. All you needed to do was to return to school and say you had been sick. That was trusting human nature a little too far.

A floating population of teachers is not particularly interested in putting a good deal into a school system which does not pay particularly high salaries. During one of those periods two of these teachers were found in Frankfort for the five days they were supposed to be out on sick leave. This

incident had a very bad effect on the Board of Education members.

The Teacher's Classroom Association was a new organization that really did not have any particular job to do, and a study of teacher absence would secure something for the teachers that everybody felt we needed, so it made a very interesting piece of work, especially in view of the fact that we were doing it ourselves. We had no clerical assistance, and both the president and I carry heavy schedules in our normal school; I am health counselor and teacher of health education, and of nature study.

The superintendent of schools permitted us to study the payrolls and we listed every teacher's absence. We knew from the payroll whether it was illness or otherwise, and we did that over a period of two years. We selected the names of all the teachers absent due to illness and we asked them to fill out a questionnaire, sent from the teaching organization itself. We did not get 100 per cent answers, so our graphs of the causes of illness do not quite check up.

This year the basis of our report was not just local conditions. We sent a questionnaire to the communities reported in the Journal of the National Education Association as having some sick leave, some one hundred and sixteen cities, and we received a very generous number of replies. There were only two or three not answering and the data on these were available through the report of the National Education Association. Our data do not always agree. We recognize their superiority in research work, but I think sometimes our questions were more definite and more to the point, and so when information on our questions was received, we used it, making our point of view a little stronger, which I think was legitimate.

We also asked the superintendents to write for us a statement of what sick leave meant to them. Two pages and a half of the report is given to these statements from superintendents all over the country.

We have been aware that some of the teachers felt that we were trying to get something that would make for lower morale in the profession. Teachers had abused this privilege and it would not be right to put them in a position to abuse it.

We asked for ten days sick leave, on the basis that in ten years ten days would be cumulative up to one school term. We asked for ten days cumulative over a period of ten years, so that if you were not absent at all you would be entitled to one hundred days sick leave, and we asked also that teachers be required to file a certificate from the physician saying they were absent because of illness. We have made a general statement and hope to see it adjusted as to whether it is a single day's absence or an absence over a period of time.

We agree, as the Classroom Teacher's Association, to keep a committee to investigate cases impartially and report to the superintendent whenever he requests it. That is to take care of the fact that some teachers may still try to abuse the privilege, and they are responsible not only to the superintendents, but to the teachers in the group.

We also say that we hope the Board of Education will consider it as a just cause for dismissal for any teacher to abuse the sick leave privilege. We also asked that the same things granted us be granted the principals and supervisors, because although they have been granted sick leave, it has been through courtesy.

Our questionaires showed that of sixty-six cities, thirty-three, or 50 per cent gave ten days or more with full pay. We found that seven cities gave from five to nine full days, and that five out of that group gave additional time, so many days with full pay and a certain number of days part pay. We found that thirteen of them gave full pay less substitute's pay. We did not take into consideration in our report the cities which gave from three to five days for death in the family or those which allowed five days for severe illness in the immediate family. In 1926 and 1927 our average absence among all classes of teachers was 3.83 days, and in 1928 it dropped to 3.40 days.

One of the big factors has been the young teacher. They said it was the young teacher who abused the privilege and was absent. We found in one year 53 per cent of the teachers teaching in Louisville public schools had taught less than five years, and now half the teachers are young teachers, and supposedly bound to be absent more than the old ones. We ac-

tually found that the greatest length of absence occurred among the teachers teaching twenty-six to thirty years. They were absent more frequently and their absences were longer. The greatest came with the poor old souls who had been teaching between forty-five and fifty years. When you have only two teachers in that class and one falls and breaks her arm, your per cent of absence will be high.

I wish I could tell you that the sick leave had been granted, but I cannot. The Board of Education has been kindly enough disposed to the whole proposition to have the Superintendent's Office investigate to see how much it would cost, and it rests right there.

Miss Edwards: The particular reason why we asked that Miss Wyman's report should be given at the health service session is that the teachers made this study and we feel that in this health service work we need to count more on the teachers showing what they can do themselves with the health service program.

Carrying Out the Health Program

"The discussion on organization problems," said Chairman Bigelow, "is to be centered around the activities of the administrator, teacher responsibility and coöperation, and home and community coöperation. Who shall administer and carry out the health program on the teaching side or on the health side of the matter? How can a program be unified? Other practical topics may be suggested by members of the section.

"Miss McCray will tell us some problems resulting from teacher training which she has encountered in preparing health courses of study for the use of teachers-in-service."

Miss Helena McCray, Supervisor, Health Instruction in Elementary Grades, State Department of Public Instruction, Harrisburg, Pennsylvania:

Reporting from our work in the field, comparatively few school administrators have organized their work in health instruction to guide their teachers in presenting the work in each grade for the year. Students enter our state teachers

colleges so meagerly prepared for the courses in health and hygiene that there is not time in one semester to give either the content sufficient for a basis for sound health training and instruction, or the methods necessary to develop the state program in health instruction.

We had a syllabus prepared for the teachers, but as I entered these four-class districts and worked in the one-room schools and in the smaller graded school systems, I found these books so often closed books, and teachers so often depending entirely upon the texts, that my purpose became to awaken in teachers the realization that our health program was to effect the health behavior of the children.

We prepared Bulletin 29 to help the teachers make a study of the needs of the children. Then we set up a few outcomes in terms of health habits, attitudes, and knowledge, and tried to have the teachers make a study of those, to see which ones were the most needed by their children.

The next step was to work with the administrators, and some of those supervising principals would say, "Our teachers do not understand how to use this material. Won't you organize some kind of program?" Contrary to the principles we were trying to establish in our Bulletin 29, under which teachers would make a study of their own situation, we finally, —because so many were found helpless,—made an outlined program which helped the teachers work for some definite objective each month, based on certain conditions during that month.

We want the teacher to feel that flexibility is written all over the program, and if in October there should be an epidemic of measles she is to feel free to go to her files for March and use some of the material that she had reserved for that objective.

This program helped the teacher to see some big objective for each month. For example, in September, there was cleanliness—clean children in clean schools. We are suggesting something for each grade, but we are asking the teacher, if she finds her fifth grade children have not developed the habits that are suggested for grade one, to go back to grade

one and work on those that her pupils need, but to adapt the lessons to the ability of the pupils in her grade.

What can we do to help the school meet the objective? The textbook is used as a tool to help accomplish an objective each month.

In this way we hope that we are going to help teachers who have not been under the influence of the training in the last few years to see the possibility of having pupils study out problems that are right in their own school, and apply what they are learning to the actual situations that they have in the school, in the home, and in their community.

This material is to help the young teacher who does not know what to do, and the older teacher who, because she has no vision, is indifferent.

In the training schools, I have said to the directors, if you will familiarize your teachers with this program it can help them help the students in training make the most of the splendid training school projects. It is most encouraging to discover that some of the directors of the training schools have caught the vision and they are helping the teachers to realize it.

Chairman Bigelow: I hope somebody will pass a state law that whenever a program is outlined, the word "flexibility" must be printed there.

It is encouraging that this state department is willing to admit that the teacher may use a large amount of flexibility in fitting that program to the local school condition.

I want to ask how you find whether health habits have been developed in a given grade? What is the test, and how do you know?

Miss McCray: My work has been largely in the one-room schools. With this program we have tried to help the county superintendent realize that if it is a health program and is functioning, when he steps into the room in September, he will look for clean children. He will look for clean schoolrooms. If he steps into the schoolroom in November, he will not find the windows locked, as we used to find them. He will look for clean handkerchiefs and he will notice whether

those girls over there are sitting with their heavy winter coats on.

We feel those are definite objectives which may be seen by the teacher. We wish him to see actual health behavior in the classroom, instead of looking to see if there is some spectacular material on the walls, or a record showing something done that the teacher couldn't verify. We want the superintendent and the teachers to see the program in the light of visible results. Any time the superintendent or supervising principal goes into the room, he will look for cleanliness no matter what time of the year it is, because that was the first thing we expected of the teacher.

Chairman Bigelow: I should like to ask another question, of significance to anyone interested in teacher training and the problem of students. These student teachers are responsible to each high pressure supervisor they meet. To what extent do you notice that these high pressure supervisors get the teachers to live the health way, neglecting other work? That is a serious problem, especially in the minds of many superintendents and principals.

Miss McCray: I hope some time to have our teachers realize that a health program means healthful living in the schoolroom, a sane development, one not carried to such an extent that the child is going to be satiated with the word "health." I have sympathy with school workers who find that a teacher must do health work so intensively that other work is neglected.

Chairman Bigelow: Do you think there is any danger of 50 per cent of the teachers becoming over-enthusiastic about health work?

Miss McCray: No, but I do think there is the danger, in some training schools, of giving students the idea that the way to develop health habits is to get so much material and to depend so much upon the health play, and outside activities of that kind, that they overlook the real living of it in the home and in the school.

Sometimes my work is going from one school to another with the county superintendent or supervising principal in

some districts. They wish me to meet the teachers in the classroom. I go in; the teachers begin to apologize because they have not anything on the walls, or the sandtable does not show some project. I hope the time comes when the teachers will sense the fact that I look at the teacher and children, and breathe the air, to help discover the kind of program they are developing.

Miss Anne Raymond, Field Representative, School Department, Cleanliness Institute, New York:

I agree with Miss McCray; as you go into the schools you feel that sometimes a teacher is a tangent teacher, and many times might have some other thing she would be carrying to extremes if she were not carrying health to extremes.

I went to a school and said, "They say you are not teaching health here."

"No. We had health here, but all the children were telling lies about what they did for health so we stopped teaching health."

I said, "That is interesting. When children copy from another's paper, do you stop teaching spelling or arithmetic, or do you find something wrong with the way you are teaching it?"

Miss Edwards: How far does Miss McCray think this plan she has worked out from month to month has really helped in the organization work?

Miss McCray: In some of the counties it has been most encouraging. It has shown some of the people the big things for which we are working, making them realize that we expect some definite results.

Miss Flack: I wonder if in stressing cleanliness so much you do not get some difficulties at home.

Miss McCray: I think we want the health teachers to understand that we must remember mothers, and we want them to understand the meaning of dirt. We want the children to go outdoors and play, but we want them to have respect for clean hands for a purpose, in the classroom, when we are handling our school materials; or, far more important, before

we eat our lunch. If we are going to eat that lunch at school, we want to take time to wash our hands. Giving the children an opportunity to wash their hands before they eat lunch I consider a more definite part of the program than anything else. That is what we have got to stand for if we are going to convince school boards that equipment is necessary for a complete program.

Chairman Bigelow: I think some of the administrators are justified in criticizing those of us responsible for teacher training for not emphasizing enough the importance in fields like health work and home economics of making the minimum maladjustment in home machinery and of making suggestions very diplomatically.

Dr. Gertude E. Moulton, Director of Physical Education for Women, Oberlin College, Oberlin, Ohio:

It seems to me that one of the big things this brings out is that a health teacher needs balance, even more than a teacher of home economics or any other subject.

Chairman Bigelow: Miss Hahn, of the State Department of Illinois, has, I am told, some interesting material on health organization problems.

Miss Mary L. Hahn, Supervisor, School Health Education, Division of Child Hygiene and Public Health Nursing, State Department of Public Health, Springfield, Illinois:

The first six months of my work were devoted entirely to visiting the teachers colleges and various state and teachers' institutes to try to get some intelligent and sympathetic appreciation of what the health problems from the school angle were in Illinois. To some extent that had been done about five years ago when the American Public Health Association survey was made of all of the machinery and results in fifteen of our small cities, showing that we were not having health service in our state to the extent that we should have it for cities of that size, considering them from the point of view of their financial ability and other resources.

To help to make our Illinois people more intelligent as to what they should have in the way of public health, the first effort was to organize more carefully the health instruction in the classrooms; then, to some extent personal, and to some extent community health problems. As an outgrowth of that work, the opportunity was offered to study the school health problems in detail. That was less than two years ago, so I can only tell you how we are trying to do it, and time only will tell whether we are really solving them.

For instance, these were some of the problems.

Superintendents would say, "We follow the Illinois Manual for the Construction of School Buildings, and the Sanitary Care of School Buildings." Yet I would go into school buildings where an offensive odor from toilet rooms met one at the front door, where the temperature and ventilation were anything but what they should be, and the children were not supplied with adequate toilet or hand-washing facilities.

The classroom teachers, especially the one-room school teachers, had a tremendous responsibility. Nothing was done unless they did it, and so our first effort was to help them to meet the organization problem, which in the state is huge, considering its one hundred and two counties.

We made two outlines, one for the lower grades, and one for the upper, from the suggestions of the teachers who had seen their problem and managed to solve it, working them into a more or less organized form that other teachers could follow. That was presented a year ago at the county teachers' institutes, and to county nurses and county superintendents, primarily for their use.

There was the problem of teachers who, when you talked about posture, said, "Oh, we talk about it all the time." If they are not managing to sell it to the children and get them interested, what is the use of talking about it all the time and boring them to death?

Similar teachers said the same thing about cleaning the teeth: "Oh, we have had a chart," but when you looked at the teeth, you found two or three children had really clean teeth. There was the problem of teachers who had recesses morning and afternoon and had not given those children

enough interest in playground activities to get them out of doors. Half of them stayed in the classroom.

The Illinois School Health Appraisal

These were problems authority could not solve. So we had a special opportunity of doing what we felt was to some extent a community project with the help of the state parent-teacher association. We studied some other school health appraisals and made what we called "The Illinois School Health Appraisal." We tried to keep it simple enough so people really interested could use it in their own school. This year we used it as a laboratory experiment to see how far it could be used and how much good it would do.

Through the state parent-teacher association we were invited to help them appraise their own school health work in three parts as a local project. First we helped to appraise the building, its equipment, heating and ventilating system, water supply, sanitary care and cleanliness. In part two we offered some brief standards of scoring the actual health service, the professional services of the doctor or nurse, or health officer. In part three we summarized the actual health instruction by the teacher.

We did not impose standards, but gave them a chance to compare their own situation with a simple standard.

Their custodian service in some cases was very poor and one teacher said, "I wish you had come five years ago, when I first came here to teach, because since you were here the custodian has been sympathetic in trying to help us ventilate our buildings, and the cleanliness of floors and toilet rooms has improved."

In one school system they have thirty elementary schools. The appraisal there with the help of our state department was made in only one school. The principal took a tremendous interest in it. It was reported at the principals' meeting and every principal of those thirty some schools is now making an appraisal with the help of the director of health in that system.

We try to check up on the actual health practices and the

practical difficulties of the children. The ultimate test comes in whether the children are using clean handkerchiefs and washing their hands before luncheon.

Dr. Moore: May I ask how you arrived at the standards you use in your health appraisal?

Miss Hahn: We read others, and put into ours what we thought we could use. As I said, I spent six months trying to see what the greatest needs were.

Chairman Bigelow: Miss Reynolds will speak on "Organization in Teacher Training Institutions."

Miss Nora L. Reynolds, Acting Director, Child Health Education, National Tuberculosis Association, New York:

The National Tuberculosis Association is very deeply interested in the question of training teachers to teach health because it has been found that the general hygiene of a community has a definite relation to the death rate from tuberculosis, and you cannot be interested in teaching health to children without being interested in how teachers are being trained.

For the last five years, the service that I have been called upon to give to our state associations, more frequently than to any others, is to visit all the state teacher training institutions in a certain state and report the health program, in order to see whether there is anything our organization might do to help any one of the state institutions to offer better teacher training.

When I go to a state institution, I look for the following:

I ask how the health work is organized; who is responsible for it.

I ask what is done for the health of the student teachers; whether health examinations are given, and what the health care in the institution is while they are there, including the kind of food and lodging.

I find out whether there is a basic minimum of health teaching that each teacher must have before she leaves, whether there are further courses she may elect if she is especially interested.

I find out whether there is a health program in the training school, and how well all these are integrated.

From my observation, I think it is becoming a rare thing to find a teachers college that is not doing at least one of these things and many of them are doing most of them. More of them are offering examinations to the students, and I am finding there are very few colleges now that do not have a basic course, sometimes called hygiene and sometimes health education, that is required for graduation.

I think the side on which there is the greatest failure is the problem of integration. Again, I think there has not been much improvement in the kind of course that is basically required. I think we ought to be able to tell a college president what a course in health education really is. Of course, we have the disadvantage of drawing instructors from varied fields. A physical education teacher teaches health in one college, a nutrition specialist in another, and a nurse in a third, and each emphasizes his specialty, so it is hard to get a balanced course. I do think that we could write up some sort of guide which would be sufficiently flexible.

There are certain basic things that a teacher ought to have before she gets her certificate to teach. I do not think we should have teachers given so much method of teaching health, such as, for instance, the most approved modern method to teach what is a good meal, without having enough basic knowledge to know what a balanced meal is. I do not think teachers make as much use as they could of the materials at hand. I think the teacher of methods would be delighted to use health as an illustration and the health teacher could devote more of her time to the fundamental things on which health teaching is based.

Chairman Bigelow: Miss Reynolds has brought up a number of very fundamental problems. The last one she mentioned is not limited to health teaching. I find everywhere teachers colleges, especially those on a graduate basis, are having a rapidly growing discussion of the question of whether the time has not come when students should get some subject matter to teach.

Educational psychology, principles of teaching, have long been much in vogue at teachers colleges, but there is a wide-

spread feeling that we are in for a reaction. Recently some who have been following up normal pupils say there is a decided trend that way. So this is not simply a health education problem.

I wish we could discuss for a few minutes that question of integration of departments in teacher training institutions. What department should take the lead in health education? Is it the proper thing for the home economics teacher to do it? Another possibility is the biology teacher, and there are a few other possible combinations. The school nurse and the school physician represent two other departments that were not mentioned.

It apparently is determined by the outstanding interest of an individual member of the staff.

My own feeling is that whether a teacher of physical education or some other subject should take the lead in health education, depends on the teacher. It is an individual matter.

How are we going to integrate the various departments which evidently bear on health?

Dr. Moulton: I have been very much interested in that problem. It seems to me health is not a thing that concerns itself with one part of the individual, but permeates the whole life of the individual. It is not a thing which is ever an end in itself, but merely a means to an end. I have wondered sometimes if it would not be valuable, in a given school, to call together all members of the faculty who were interested in teaching health in any phase whatsoever, and have each one of them explain the ways in which health touches his department and things that he can contribute toward health. They could organize as a sort of team, doing teamwork, come together at different times because there is interest in teaching health; have an elected chairman or captain of the team, more or less responsible for organizing and integrating the work, and have each member of the team with his own particular position to play.

Miss Steele: We have a faculty committee on health education and it is headed by the health instructor, the doctor, and the nurse, or perhaps the doctor is the nominal head, but the

working head is the director of health education. The principal is tremendously interested in the whole health program. That is one thing that makes it valuable.

I should like to speak of one administrative device and also a curriculum measure which help in the practical work of bringing about unity.

The device which is being used is that during the term preceding the student-teacher period an attempt is made to give the student the opportunity and practice to prepare in a very detailed way, with all the cultural and intellectual background which she should have, one topic originally assigned by the teacher in the classroom. This is worked upon by the student under the direction of a specialist.

I commend it as an experimental method to anybody who has a system simple enough so that there is hope of working it out.

If a kindergarten-primary student, for example, has this health unit and it seems advisable to her to work out, we will say, some expression of it by the use of blocks or materials, she has an opportunity at the same time she is working with the health theory teacher to work out the practical materials under the direction of the kindergarten-primary specialist.

The unit plan, as we are calling it, for want of a better name, draws the various departments together because the point is to train this one student to go out and do this one thing.

Chairman Bigelow: That integration depends on one person, does it not?

Miss Steele: One person is mainly responsible for it—that is, in health—and the other instructor, in the other subject.

Chairman Bigelow: There is a demand for a well-trained man or woman who sees all sides of the health problem and has a balance of the medical side, the hygiene side, the sanitation side, the psychology side, and it is not a specialist in any one of these but corresponds to the general practitioner in medicine.

Miss Edwards: I think there is something to keep in mind in the integration of teacher training work, and that is the

primary purpose of teacher training institutions,—to prepare teachers. A science person might have subject matter and a physical education person might have subject matter, but the person who has a cross-section of subject matter, plus the knowledge for training teachers and the experience, is a broadly trained, educational person.

Chairman Bigelow: I think the best way to avoid difficulty and from the standpoint of a college administrator to be sure that the important things are not left out, would be to have some committee representing all phases of health.

Dr. Moulton: Another question is how to make the course emotionally real, so that it is more than an intellectual problem.

I think it is important to make the subject so real that the pupils will put it into practice.

Chairman Bigelow: Some recent investigations by Professors Hartshorn and May in problems of character education give evidence that we are falling down in our teaching because we cannot make it emotionally reol.

What puzzles me is how are we to do it in mass form? I have seen numerous cases in which we could make applied science emotionally real to the individual, but how will you deal with groups? The great majority of normal schools of the country cannot give the personal attention. Towson Normal School, concerning which we have heard, is rather unique in the amount of personal attention which it can give the students.

That question resolves itself into how to organize it so as to handle larger groups.

Mrs. Anna De Planter Bows, Nutrition Education, Philadelphia Child Health Society, Philadelphia, Pennsylvania:

I have been trying to meet that problem with graduate students who have majored for the most part in sociology. My point of emphasis is nutrition and I can make it very, very personal.

The first lecture I give them is on Dr. Wood's "Personal Health Standard and Scale," and I have the "Health and

Nutrition Chart" which they analyze. The first thing I ask them to do is think over their own personal health in nutrition problems and score themselves that week and return it at the end of the week. I have them rescore themselves twice during the time they take the course. They also do another scoring at the end of the vacations and at the end of the year, with a careful analysis of a week's diet in which they not only go into the matter very, very carefully, but also have personal conference with me.

I think an instructor can do a great deal of personal work and make it very real and applicable to the students. I think that is more true in nutrition than in some of the other phases of health education work, but I have no lack of personal emotional reactions in nutrition.

Chairman Bigelow: I do not believe it is a matter of subject matter. I think it depends on the teacher.

Miss Phelan: Is it not the motive for doing all this that really counts? In final analysis, I would start with the child. Our students have a first-class medical examination with first-class records. Making an approach from the personal angle, we got excellent response from the students in the matter of clearing up their own defects, but there was little recognition by them of this as a responsibility of a teacher.

We found we had, in final analysis, to go into the demonstration school and have the student teachers present, either in small groups or individually, at the health examination of the children in order to work this whole thing through from the standpoint of child health. That is where I would begin.

Chairman Bigelow: I think we will now ask Miss Steele for a brief summary.

Miss Steele: The discussion touched upon both pre-service and in-service problems, but no one has said how that gap is to be bridged. I think that opens up another question that might be discussed at another time, with emphasis on the point that it is difficult to get teachers to care enough to get the emotional response to these problems, and to the subject matter that we try to put before student teachers.

In the problem of organizing health work, the administra-

tor has to work upon the sequence of the various courses, after they have been determined, and the organization of material within the course.

I believe the answer to some of the very problems raised here as to practicing the thing instead of studying about it, lies, in the enlightened normal school, in teaching the student teacher to budget her time, to treat her like a college student and not like an elementary student.

The psychological aspect of organization needs to be taken into consideration and just as "We cannot learn what we do not practice," conversely, we learn what we do practice. The students will not be good health instructors if they have not the opportunity during their training period to practice desirable habits of health instruction and healthful living.

A few examples will show how this can be done in a small way. Students can be given the opportunity during training period to eat with children, with all that that implies; to play with children, with all that that implies; and to budget their time, as I have already suggested. And this is the last thought I want to leave, that their time should be budgeted.

There is great responsibility left on administrators, both in normal schools and in teachers colleges, and on those who are concerned with teachers-in-service, to see that the organization of the school system as a whole is such that teachers have an opportunity for healthy living, and give an example of healthy living for the children.

Miss Edwards: The Maxwell Training School made a very interesting study of the day's schedule in connection with their own school, and found that the day was so crowded with classes and the extracurricular activities that the students really did not have any time to practice the laws of health. For instance, it was found that the majority of them did about ten hours' home work outside of their regular school classes in this two-year teacher training course, and besides that commuted from all parts and surroundings of New York City, and they were obliged to use their time while commuting, for study, which was most unhygienic.

You could count on four hands the number of them that

ever got an opportunity to do any studying at home, because when they arrived home and ate their dinner and did the housework they were doing, and got their clothes ready for the next day, it was then eleven or eleven-thirty, time to go to bed, and they left their homes in the morning at six-thirty for their classes the next day.

So, I do agree with Miss Steele that the day's schedule is one of the most important things in the teacher training institution.

Chairman Bailey: Miss Flack, will you add to this summary?

Miss Flack: Contrary to the teachers, I seize every opportunity I can to do health teaching. I have wondered as you talked why no one felt that the teacher needed to have a broader view of the other fields. I feel that if the teacher could get into the health field, and know something about it and know some of the problems in the health field she would be much more sympathetic and understanding toward the problems that come up in the home and in the school and would know how to ask for the help that she needs.

As to the question who shall administer or carry out the health program, the question of integration is probably the most difficult one with which we have to deal.

Results of a Discussion of Criteria

"The group in teacher training," said Chairman Bigelow, "reached certain end results in a discussion of criteria with reference to materials and activities, that should be recorded." Chairman Bigelow stated these results, as finally expressed by the group.

Chairman Bigelow: The criteria, as re-worded, follow, having been changed from questions to positive declarations:

1. Health activities and materials should conform to scientific knowledge and procedures. Subject matter should be valid. Teaching techniques should be in accord with the principles of learning.

2. Health activities and materials should satisfy the fundamental educational objectives.

3. Health activities and materials should integrate mental, emotional, social, and physical health values.

4. Health activities and materials must provide for differences and needs of individuals and groups.

5. Individual interests should be guided and developed as long as they are to the best interests of the individual in the social group.

6. Health activities and interests should contribute to an understanding of social demands and social meanings for all concerned.

7. Health activities and materials should lead into further constructive activities or materials and into wider interests and understandings.

8. Health activities and materials should be so related to life situations as to be significant to the pupil.

9. Beneficial individual conduct should emerge from the health activities and from the use of the health materials.

10. Health activities and materials should secure the active coöperation of parents, school administrators, teachers, pupils, and community agencies.

Will someone speak on the subject of integration of home economics in the health training of the teacher? There may be a better opportunity after we discuss materials and activities for health education in general, but it is a problem that comes up in many teacher training institutions.

Sanitation is often involved under home economics and I know teacher training institutions where it is conceded there is a professor of biology or someone else much better adapted to teaching sanitation than the home economics teachers.

So far as the teacher training institutions go, the biggest problem I have seen is the integrating of home economics in the training of teachers of health education. I do not believe that in home economics training courses for teachers, we are going to be able to furnish the right kind of training, especially in nutrition, to teachers of health education.

Miss Edwards: I feel health education workers can get much help from the home economics department. This help is not

only in nutrition work, but in getting the child to better adjust himself both mentally and socially in his own home. I should like particularly to have you appreciate this. The home economics teacher is teaching family relationships, child development, home sanitation, home furnishing, as well as nutrition, and all of those things that help the child to adjust himself better to his or her own home.

Chairman Bigelow: I think Miss Edwards is right on that, but the challenge is out for home economics teachers to adapt their work for this purpose.

Miss Marion S. Van Liew, Chief, Bureau of Home Economics, State Education Department, University of the State of New York, Albany, New York:

In New York State we are commencing next year a course we are calling "Home and Family Relationships." This is an integrated course, which has a leader, but is carried by contributing departments, sociology, psychology, child development, and parent education, economics, household management, and nutrition. This integrated course is being given for the first time in our state in the Buffalo State College, in Buffalo, where they train elementary school teachers from the kindergarten up, and in the State College for Teachers, in Albany, where they train junior and senior high school teachers.

The purpose is to give a school teacher of academic subjects or any other subjects, basic material on the home, the family, and community life, and to give the teacher an opportunity to assist the children to live more intelligently as members of their family and of a social group.

Home-making education on a vocational basis is progressing very rapidly in our state and it is progressing in the small school. By the small school I mean the school in a town of from 250 inhabitants to possibly 3000 or 4000. This means that girls are preparing to be home-makers. They are not preparing for college. We find in these small schools not a full program for a teacher of home economics, but we find a greater

need for teaching health and nutrition below the grades where home economics is set; that means from the first to sixth grades. So, with the approval of the state office in health education, it is suggested to the school administration that the home economics teacher take some part in this health education program and she will have to do it because there is no other leader in health education unless there is a nurse, called in temporarily, to take over this problem.

I am frank to confess that this is not always done with the greatest of satisfaction, because our home economics teachers are trained in junior and senior high school methods and not elementary school methods. Within the past month the president of one of the state colleges has been approached to consider setting up a coördinated course in home economics and health education. The president is interested. The director of the preparatory school, the health education and home economics workers are interested, and I hope we are going to be able to train a person to teach home-making and health education, and be of maximum service in a small school situation.

Miss Phelan: It seems to me that the integrated course which Miss Van Liew suggests is a course that should be required of all girls and of all boys, provided it is given by people in such a way that it can meet the common needs of the two sexes in high school.

Miss Edna B. McNaughton, Professor, Home Economics, University of Maryland, College Park, Maryland:

The students of a certain training institution had a student forum and invited in the members of the faculties of the college of home economics and arts and sciences, and presented the various subjects they thought should be given in an ideal course. Members of the home economics department spoke for home economics, and of the arts and sciences department, for arts and sciences. As a result of that the department of arts and sciences is including home economics subjects in its curriculum and there are special courses for that. There is to be a course given in child development and a course in homes.

The students have been responsible for that change, and it seems to me that we should take whatever such opportunity comes to us.

We are trying to give a positive program of mental and physical and emotional health. I think we need more coöperation with the homes, for although we are trying to help the girls plan their work, we are not always considering what the home conditions demand of these girls.

Miss Elma Rood, Associate Professor, Nursing Education, Peabody College, Nashville, Tennessee:

The demonstration school represents a small unit in which in many ways things go on just as they do in the training school. Teachers in training go into this, if they can, to demonstrate. As regards home economics, that it function through the entire school and in the cafeteria, is important, so that the health motive permeates the serving of the food, the choice of the food and the kinds of things put on the counters before the children when they come into the cafeteria. That influences the student's attitude. It means more than theory.

If they do not find that we are able to make home economics function with the children, in a favorable environment in comparison with some situations they go into, they look rather hopelessly at the situation in the field. We have a great responsibility to see that all these principles function on our training school campus, as we can draw from that field actual life teaching material.

I should like to know how much these materials we talk about in the training of teachers really are put into effect on the training school campus and with the children for whom we are responsible.

Chairman Bigelow: This point regarding the lunchroom, proper selection of foods, and so forth, I want to emphasize comes from the professor of nursing education. There it is quite evident that the home economics department is touching not only the students who take courses, but all the students who use the part of the building under the direction of the home economics staff.

Dr. Thomas W. Galloway, Associate Director, Division of Educational Measures, American Social Hyqiene Association, New York:

I want to raise this question: To what extent is home economics at large recognizing the significance, the value, and the opportunity in home economics work, of sex education?

Miss Van Liew: As far as home economics subject matter is concerned, I think I am correct in saying that we have done and are doing little. In coöperation with child development and parent education, we are beginning to do a splendid piece of work which will be carried into home economics education.

I should be glad to have you meet Dr. Ruth Andrus while she is here, and I think you would be extremely interested in some of the things she is doing.

Dr. Galloway: May I make a remark of personal conviction? It seems to me among girls of junior high school age, girls who may go to school no longer, there is an opportunity in a home-making course to give them an understanding, without any artificial segregation, in the class primarily, of these knowledges which they must get somewhere.

In suggesting that home economics has part in this integration, I am not indicating that it has the sole part. It seems to me in all the subjects that in any manner touch health, biology, physiology, your ordinary health work, physical education, mental hygiene, the social studies, literature, all of these must contribute to enlightening the child of this age as to this particular phase of insight and development which will make possible a rich family life.

Chairman Bigelow: I recently visited a large coeducational institution which has a strong teacher training department, some 60 per cent of their students go into teaching, in which the problem of social hygiene has been brought up from the standpoint of the department of home economics.

The interesting result, to me, was that starting from the standpoint of a department supposed to be limited to women, dealing with the problems of social hygiene as they affect the home and family, it reached over to the men. The dean told me that he has a petition from many of the representative

men that next year if any such work is given, it shall be, either in separate or combined sections, available to men. The dean said some of the men stated in the petition they did not think it was fair to let the department of home economics have a monopoly of this important phase of social health.

That same college had considered a number of years ago the question of making social hygiene available to both men and women through the department of social science. The approach from the standpoint of the home and family seemed more natural.

Science and Teacher Training

In introducing to the group in teacher training a new topic for their consideration, Chairman Bigelow asked, "What does science contribute in the line of materials and activities toward the training of teachers of health education? Professor Van Buskirk will tell us what they are doing at Stevens College, Missouri. They have there a phase of experimental work to which Dr. Van Buskirk has given considerable time and attention, especially to general science with reference to health."

Dr. E. F. Van Buskirk, Director, Department of Science and Health Education, Stevens College, Columbia, Missouri:

The college in which I am located is a junior college for women. We also have been taking recently some students in the upper two years of high school. The orientation course which we are offering, we require of the academic students, as we call them. It is below the college level and is taken also by about an equal number of students who are in the years corresponding to the freshman-sophomore years of college. We have about thirty in the class. The college has six or seven hundred students for the most part on the college level.

We offer, at Stevens, courses in what we might think of as natural science. Hygiene is a course which is taken by about a hundred of the six hundred students. It is not required; we are working out a course which will be. The home nursing course is not under the home economics department, but has been placed under natural science. The physiology course is

taken only by the seniors of the college, and only by a small group especially interested in the subject.

The orientation course runs through the whole year and three hours' college credit is given for it. There is an arrangement that has been made with the North Central Association of Colleges and Secondary Schools for giving credit in botany or zoölogy to those who take the course for a five-year period of experimentation.

Then we have regular courses in botany, zoölogy and chemistry. Physics, bacteriology, and anatomy are not given at Stevens, but they can be taken at Missouri State University, which is located in the same town.

This gives the scope of our work in the field of natural science. Although some of the courses do not appear to have much to do with health, we do make a point of bringing in health in relation to the different fields of study.

I will discuss briefly the orientation course in natural science which is one of four such orientation courses which we are working out. The others are as follows: A course in social studies, which is being evolved by the dean of the college; a so-called humanities course, in charge of the head of the English department, and one in vocations. In many places where orientation courses in natural science are being introduced,—I think in the majority of cases,—they start with astronomy. As I have specialized more in biology, I find it better for a starting point, perhaps because of my lack of training in the other fields. The course is composed of units of study which last about a month.

Although only three hours' credit is given, I meet with the student five periods a week, one being a double period, so there is quite a little time available for the work. After a month's study of biology and zoölogy, we then take the elementary principles of physiology and psychology, and disease prevention, bringing in some bacteriological concepts in that field, and the interrelationships of plants and animals. The next semester we study the inorganic world, starting with astronomy for a month, and taking up geology, geophysics, chemistry, with two or three lessons in mathematics, because that, of course, is fundamental to all of the different science

fields, and it furnishes opportunity for correlation and integration.

Points Stressed

We stress all the way through this course these ideas: the outstanding modern concepts in these fields, some applications, and a logical organization of subject matter. You see, this is quite a different kind of course from a general science course. It is what you might think of as a general science course on the college level. We also make a definite effort to get historical perspective in each of these different fields to see how the modern ideas have evolved, and when these different fields of science really emerged into existence.

That will give you a general idea of what we are trying to do in this course. I suppose many of you know that in several other institutions, similar ones are being worked out at the present time.

My own particular work having been in the health field, I try to make use of those opportunities for health relationships that arise. General biological conceptions are fundamental to an understanding of health, and in botany, zoölogy, and certainly in physiology and psychology, there are abundant opportunities for bringing in related health facts. There is a separate division, a unit of study on disease prevention and positive health. These have great opportunities in them for incidental teaching in the field. In astronomy, there are superstitions in regard to being able to determine the coming of plagues by consulting the stars. Many conceptions in chemistry have a definite relationship to health.

One of the students prepared a paper on the subject of radium and how it is used now. In physics there is the x-ray, and its relation to medicine. In each of these units of study the students can make special reports, perhaps in the nature of term papers or unit papers, and I stress the opportunities in the field of health for these.

We want to make the hygiene course which we are trying to work out, to be required of the students at Stevens, a functional course. In order to do it, we are getting, for one thing,

as many spontaneous questions which girls ask at college age about health topics as we possibly can.

In our own college we have several departments for physical education where they are recording the questions which girls ask when they come in for attention of one kind or another. We have records in our clinics also, furnishing data upon the needs of young women.

During the last year I have had occasion to write to some few scores of institutions in different parts of the country, first to the president and then to those who have charge of the health program, asking them for any help which they could give. I should like to take this opportunity of inviting your coöperation in getting for me or telling me where I can get more of these spontaneous questions. I would appreciate that very much.

We are tabulating these, along with certain other problems, on cards. At the present time I have about two thousand of the cards and I want to get two or three thousand more before we go to the next stage of the study. We get the information from articles, from special books which have been written, from newspapers. For several months we recorded questions women were asking about health in the Chicago Tribune and these are being tabulated.

It is our purpose after we get all these different problems, to organize them under different heads and send them to certain experts in the country and get their opinions as to which of the topics might or should be included in the course that would be required at the college level in hygiene. The college authorities are willing, they tell me, if this is done carefully and it seems worth while, to give whatever time may be necessary to the course. If it takes three hours per semester running through the whole year, they are willing to do that or even give more time to it, but they and I feel that much that is given now in hygiene courses in college is a waste of time, because we do not have really functional courses.

Chairman Bigelow: Do you not find that many of the questions relate to the prevalence and treatment of common diseases? It strikes me that that is the line we ought to follow

and I, for one, should be delighted to coöperate with Dr. Van Buskirk in the accumulation of these questions. When he gets through he will not be so far from the leading topics of hygiene; it is my guess he will hit 97 per cent of those topics. It will be a compilation well worth while.

Dr. Van Buskirk: In order to forestall one of the questions I know Dr. Galloway will ask, I may say parenthetically I do give a good deal of attention to social hygiene, and we have had several interesting questions in that field. A group of fifty girls, freshmen and sophomores, when given an opportunity to express themselves, practically unanimously asked to go further into social hygiene. My previous training has been in the field of social hygiene, so one might expect me to try to meet the issues there as well as I can.

With regard to materials and activities, I do believe in using models and charts. I do believe in field trips, and we have opportunities for taking them. We have used, for instance, the university dairy, which is one of the most interesting trips that we have. Another is to the waterworks plant of the town. Ours is not simply a textbook course, but one which we try to relate to everyday living.

Chairman Bigelow: A large part of this is applicable to a two- or three-year training institution, or a two-year normal school.

The best arrangement of scientific materials I have personally found for a two-year normal school is in Towson, Maryland. They do not have any considerable number of students who do not expect to teach in elementary schools. They have a two-year training course; their fundamental course is four semesters, two each year.

The first semester is a biology course, including the high points of general biology, biology as related to plants and animals, physiology and facts relating to bacteriology or disease prevention. Normally they try to follow it with a half-year of personal hygiene, with materials such as Dr. Van Buskirk puts into his course here. It is all hygiene applied to the individual.

In the beginning of the sophomore year they have a course

in home and community hygiene, and later a course on how the teacher in the elementary school is going to use the materials she has in biology, home and community hygiene. Dr. Tall believes in presenting the facts of those three courses so they will be useful even if teachers do not get the course to teach in the elementary school.

Again there is the point of view suggested previously by Miss Phelan, that of teachers in pedagogy and education who insist that instead of going ahead and giving a straight course in science, in hygiene or biology, and then its applications, that we should weave together subject matter and methods of teaching as we go along.

They would start out at the very beginning with the fundamental ideas from the point of view of the child, and carry it all the way through. It is very interesting, but I do not know of anyone who has succeeded in carrying it out very much beyond theory. It has been done to some extent in nature study, but I have not yet seen an all-inclusive course to cover the facts of science that has been presented in that type of so-called professionalized course.

It will arouse interesting discussion if somebody can do it. There is grave doubt as to how practical it would be if it could be done, because we would have to train a whole generation of science teachers to do it. At the present time the science teachers cannot do more than select the facts of science which have a bearing upon health, leaving to somebody else the question of how you are going to use it in the elementary school. I should like however to also call attention to this other point of view.

Miss Wyman: When we met in Chicago, we raised certain problems and those problems have not yet been solved. The first was: Are the health materials and activities a response to definite personal and professional needs of the individual as revealed by the cumulative record of health examination? Do you in any way make an attempt to tie up the hygiene course with the physical condition of the students?

Dr. Van Buskirk: In getting data for a new course we are taking those cards into consideration, to show the health

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needs of the students. I personally make a habit of looking over the cards myself for my own students and they do help at times. Those cards have not been used to determine the nature of the course; that is true. I think they could be used to much greater extent than they have been.

Dr. Moulton: I have a course in personal hygiene which is divided into three parts. One is a source book that each individual has to prepare as we have no textbook. This source book is a compilation of what each author has to say on whatever subject the class discusses.

One is the part leading toward passing satisfactory tests, but the significant part of the course is the application to the individual of some phases of it, and the determination of the major and minor problem which each undertakes. These differ only in the care with which they are reported.

The determination of these problems is made after consultation with me at which time the individual goes over carefully the findings of the health examination, and I attempt to find out what particularly interested her, and to devise tests which can be made to measure her progress along that line. She carries them out and the major problems she writes up, giving the information that she can get from her reading, and also the data carefully collected on her own case. The minor problems she simply reports to me. She has to satisfy herself and me that she has applied her new information to some things which examination showed she needed. It creates a good deal of interest, but it has weak points.

Miss Wyman: Is there any attempt to make this personal hygiene carry over into an active program of habit formation so important with normal students? They should know the children should sleep with their windows open, and do they know it is a good thing to drink milk? Do they do the things they preach? I think that has to be taught.

Dr. Van Buskirk: It seems to me that some kind of committee which would have on it representatives from the physical education and natural science departments might meet from time to time and discuss the interrelationships of the physical education people and the dormitory life, the condi-

tions on the campus, and see to what extent they may be duplicating?

Miss Edwards: What is being developed or done about student participation in this? We have been looking at it from the point of view of coöperation of the faculty and I think it is just as important to get this free participation on the part of the students.

Chairman Bigelow: Miss Edwards, do you know of anyone who is doing it?

Miss Wyman: I am trying to do it, Dr. Bigelow.

Miss Ethel M. Mealey, Staff Associate, Division of Health Education, American Child Health Association, New York:

In the Kansas City Teachers College they are attempting to put their health work on a committee basis to carry it into the demonstration school. In getting their work under way, they made a survey of the demonstration school and of sixty-five training centres as well.

Chairman Bigelow: Were they steered in any way by members of the faculty?

Miss Mealey: The girls organized their own committees, apparently with little guidance.

Chairman Bigelow: I can't see any conflict between any plan of using student committees and faculty committees, but in most institutions you would have to have a faculty committee to cover the ground. The orientation of biology, science, and so forth, at Chicago is handled by a committee of nine or ten professors. The professor of astronomy gives the unit of astronomy and the botanist gives it in botany. What they do in that case you will find in the book edited by H. H. Newman and entitled, "The Nature of the World and of Man."

There are few institutions where they have one or more professors with a point of view over the whole thing.

I cannot see any conflict between having a faculty committee correlate and integrate and at the same time use the device of student committees to help the students live hygiene

as far as possible. Everybody knows that at best this actual practice of it during college years is going to be limited. It is a little too late to form health habits in most of us. We can put in health knowledge which might help us to teach health habits to younger people, but most people of college age have passed the time when they can form many reflexes that are really health habits.

Miss Lydia Clark, Professor, Physical Education, Ohio State University, Columbus, Ohio:

Have you gone far enough to decide upon the size of the class which you will handle in hygiene? We have two teachers who are in the physical education and the health service departments, who have a positive health point of view, but the sections are very large. We have been able to reduce them. Some are forty, and fifty, and that is smaller than they have been.

Dr. Van Buskirk: Do you find it better?

Miss Clark: Yes, but we still do not face the individual needs in the problems. It would be better if we could have some knowledge test that could be used at the beginning of the course, as the personal conferences are almost impossible.

Dr. Van Buskirk: I had sections of fifty this last semester. I think they were too large. When we come to have the course required, we have a real problem, and we do not know what the answer is.

Chairman Bigelow: I find all kinds of institutions, teacher training as well as liberal arts colleges, that probably meet in every department the problem of the large classes. The feeling is that more and more we have to get our work organized so as to present it to all the students in the class on the assumption that they can all take it. However desirable it may be, unless there is a vast increase in the college staffs, we are limited in the amount of personal attention we can give the students.

Dr. Van Buskirk: I find a good deal of prejudice against hygiene work. There is a danger of using words like "health" and "hygiene" so much that students may enter high school

with a prejudice against them. There is such a marked tendency in that direction, that there is something in favor of orientation courses of a general nature dealing with general problems of life.

In college they are opposed positively. There is not much reason why healthy young people should take to the study of subjects like health and hygiene. Most of us begin to appreciate hygiene when we are a little older and begin to get into some of the difficulties which make us realize the importance of it.

Miss Clark: It is an old story, from the first grade through high school; the word they get all the time is "health." It is the constant repetition that makes them tired of it and that is one reason, I believe, why you notice fresh interest in the college courses in bacteriology. We need some new organization of our materials for health, especially in college, since there is a prejudice that is very difficult to live down.

Dr. Moulton: There is another part of this work that interests me and that is how we are going to teach the faculties. I think sometimes our difficulty comes from the faculties themselves not understanding the whole situation. I like the term "team work."

It seems to me in this matter of teaching health, health is not a separate subject, but permeates the whole, and until we can get our team together and have a captain and have some practice ourselves with each other so that we understand what particular position each person plays, we won't be able to put up a very good game for the students to observe.

Chairman Bigelow: There is no doubt about it, the problem of getting faculty coöperation and team work is a big one. I think as a rule satisfactory solutions can only be found in the cases where some strong leader of the faculty, such as the dean or president, takes a personal interest in getting them to pull together.

Miss Brown is going to give us some of her points of view regarding the selecting of materials and activities in health education.

Miss Maud A. Brown, Director, Bureau Coöperative School Health Service, University Extension Division, University of Kansas, Lawrence, Kansas:

My special field and also my heart, are in the work for the teacher, but the problem is all one so far as the fundamental material and facts to be taught are concerned.

I have been seriously questioning for the last five years and trying to find out the source of this baffling difficulty about health education. At times I have just decided that the thing was a sterile hybrid that could not reproduce itself and could not be expected to; it was going to be an eternal hand-to-hand conflict on the purely pragmatic basis.

I have developed a fairly satisfactory working platform. In my own thinking, of course, in discussing materials and procedures for teachers, we have first to determine what we are trying to teach. We know it is not the old hygiene because that did not function in health, so I am calling health a natural science. I do not believe it is a hybrid. I think it is a perfectly legitimate offspring with the old hygiene for one parent, and that health itself is the natural science and a laboratory science, but the laboratory material is the reaction of the child itself.

The Teacher's Normal Diagnosis of Pupils

The laboratory material in the teaching of the old hygiene was the guinea pig and plant nutrition experiment, and that is indispensable. We have to get our facts there. But another laboratory phase now is the application of these things to the child and the intelligent following by the teacher of the effects of these changed conditions on the condition of the child. In other words, using the physical education term which I like, the teacher first has to be taught to make a normal diagnosis of her pupils.

The problem then to my notion splits at once. Perhaps the first source of difficulty in answering the question as to what we are training them for is this double meaning of the word "hygiene." Then, also, there is the absence of a middle ground between the classroom teacher who teaches health among other

subjects under the general or specific direction of a supervisor, and the supervisor herself. A great gulf exists between the needs of the two, and it seems to me there is no middle ground.

The needs of the classroom teacher are the more important because she always is with us and there are a thousand times as many of her, while the supervisor of health education is the temporary stop-gap whose aim should be to eliminate herself.

My personal feeling is that our aim should be to delete the capital letter from "Health" as soon as possible and turn it from a special subject with a special technique, from the special fund of information and experience, to a larger fund than the general subjects can have at present, taking it over from the realm of a special subject into the field of general subjects, where everybody is supposed to possess the essential information for healthful living.

This can be brought about only through this coördination we are talking about where all other services and subjects may come and make their own contribution. It is very remarkable how the field of "health" almost disappears when we assign to each one of the assisting sciences and subjects their own intrinsic health values and insist it be put down and systematically taught always, and the administration of the course arranged so that electives do not allow pupils to get through, missing the intrinsic contribution of physics, or chemistry, or home economics, or biology, which of course is fundamental to all.

The Problem of Equipment for Classroom Teachers

For the present, and probably for a long time, the two kinds of teachers must be provided. First, the classroom teacher, where the problem is to equip her in two directions: first, to deal with her individual pupils intelligently as individuals; and, second, to teach the essential facts of personal public health in each grade.

This is probably a sufficient problem for discussion without beginning to consider the equipment of the special supervisor

of health. Health, in its first aspect, is a laboratory science, the child himself being the laboratory in which he is led intelligently to cope with the relations between cause and effect. Health, in its second aspect, is identical with hygiene when the laboratory study is of specific physiological processes, and for this phase of it my thunder has been all stolen because there is absolutely no ground for difference of opinion between the suggestions of Dr. Van Buskirk and Dr. Bigelow as to these minimum requirements for equipping any teacher to deal intelligently with her classroom as a collection of biological organisms, of living organisms.

The first phase of the study of the child himself is a most difficult thing for which to find material. There is very little in print and much that is conflicting. The teacher must be taught to recognize signs of health and departures from health, to make a diagnosis, and must be taught what the chief causes are and where to look for the cure. This is the most difficult of all, but, since it is of primary importance, the persistent demand is bound to bring supply.

Available Material

Dr. Rogers' pamphlet, "What Every Teacher Should Know About the Physical Condition of Her Children," the American Child Health Association pamphlet, "Signs of Health in Childhood," and the bulletins which the Detroit Board of Education puts out for its teachers, are in the right direction.

I believe, personally, it is a mistaken idea to have teachers do screening for the doctors, but they get tremendously valuable equipment in being taught to see their children intelligently, whether the use they are being asked to put it to is correct or not. There are probably more books than I know of which are good, but there is not much material at present. It is like music, it just almost has to be taught by a teacher who actually knows the living child. When such a one is found, whether doctor or nurse, physical education teacher, or home economics teacher, the community should subsidize him for life. Once in a while you even find a specialist in parental education who knows something about children. From whatever

field that rare person comes, if the community intelligentlv and earnestly hunts for such a person, they will find him, even now.

Only very recently has the study of the normal child been inserted into the training of pediatricians. That course, I am told, is being put very rapidly into the leading medical colleges and will, I think, solve the problem in the right direction of this sort of educational material for these teachers. For many years the medical colleges are going to have an inadequate supply for this demand.

Then, what to teach? And what are the sources of material for this? The materials, I should say, were inherent in the courses of the textbooks and the laboratory development under instruction in the normal college. I believe that can be gotten across very adequately with teachers-in-training outside and after the normal training course, but I think that is another problem. I have one additional suggestion to the list of essentials for training the teacher. That additional equipment is training in recreational technique and simple games and sports, so that the teacher can help her own pupils intelligently in the line of big muscle activity.

Chairman Bigelow: Miss Spencer, do you want to ask any questions?

Miss Mary E. Spencer, Specialist, Health Education, National Catholic Welfare Conference, Washington, D. C.:

I should like to ask a number of questions of Miss Brown. I am very much interested in what you say about teaching teachers to recognize the normal child and the abnormalities. That is the thing which we have been stressing with our Sisters. I wonder how it can best be done. I was giving a course myself at a University and I asked a doctor to take over that part of the work for me. He objected to using children for demonstration. I asked, "How else are you going to teach teachers what a normal child is, and what an abnormal throat is, or a poor posture?" Do you believe in that individual method?

Miss Brown: It is possible, but I think it must be tremendously safeguarded. For instance, I have never got over my

horror when a certain man who has done very admirable work, set up an undernourished child who presented an extreme picture of malnutrition, before an audience of five thousand and pointed out that child's deficiencies one at a time before that audience. That of course, is one extreme. The other extreme is too great sensitiveness.

Children have to learn that they have red hair instead of brown hair, or that some are tall and some short, and there is a casual way of treating that just as there is a casual way of talking with them about their health habits and about what time they went to bed. There is an art of treating it casually.

The children who illustrate different degrees of excellence and departures from excellence may be sorted out and then on some other pretext may be brought before the teachers, designated by a number or something of that kind, to which the teachers have the key. The teachers can be studying the children and even feeling their biceps and making quite a careful observation, yet the children will be unconscious of what they are illustrating. Like in everything else worthwhile the technique must be skillful.

One of the greatest difficulties is to find doctors who know healthy children, and the next point is to get them to feel that it is worth while talking in their own terms to the laity. It is a case of planning for each individual situation, I think.

Miss Spencer: I think we can teach teachers to distinguish between the normal child and the abnormal child by doing it in the way you suggest. My idea involved preparation. The professor in charge would discuss the various situations and children would be brought in the class following and the child wouldn't know why he was there.

A few years ago I stood up in the Chicago meeting of this group and asked, in teaching teachers for a two-year course, would you teach your subject matters and methods in one course if you couldn't get any more time, and how would you handle the situation. Various important people answered the question and the consensus opinion of the group was that if they had only one course, they would teach both the subject matter and the methods. That would be a two-hour period for

thirty weeks during the year. I am wondering what your opinion on it is.

Miss Brown: My very strong personal feeling is, teach your subject matter and then let the teachers apply the best methods they have already learned to the subject matter. I don't feel that there is a separate fund of pedagogical method for teaching facts about health.

Miss Spencer: You substantiate my own feeling on that point. In teaching the Sisters I start out with the background material but they are more interested in methods. My work is with Sisters-in-service-largely. To Sisters-in-training my opportunity is only for isolated lectures where I cannot go into great detail, but just give the modern ideal. The health development department is handled by their own Sisters who are teaching. Usually in a normal school a Sister or nurse will teach hygiene.

Miss Rood: It is a legitimate thing, I take it, in a training school which has a demonstration school to have your students in educational hygiene courses, perhaps, or in health education, who are trying to learn what a normal child is, assist in the medical office while the examinations are going on, or assist the nurse in screening, preparatory to the doctor's inspection.

Chairman Bigelow: There is another problem in the suggestion that has come from many parts of the country, that health education, like the nature study of the upper grades, is so complex that it is nonsense to talk about training every teacher for it. Have you had any experience?

Miss Wyman: Do you not think that is like English? No matter what a teacher teaches, she has to teach English. I heard a very good science professor state, that every science teacher had to be an English teacher. Is not the same thing true about health? The home room and general teacher must have a viewpoint on health education and be able to contribute whenever possible.

Chairman Bigelow: Giving everyone who is going through a training school for the elementary school the point of view of health education is quite different from preparing them to take charge of the work of the upper grades.

Miss Ethel A. Grosscup, Adviser, Child Health Instruction, State Committee on Tuberculosis and Public Health, State Charities Aid Association, New York:

Should the teachers who will go to the rural districts have specific training? Having been trained in normal school and having been a rural state supervisor in physical education and hygiene, I feel that very keenly. In summer school for two summers I have tried having the students make a choice, those who knew they were going into rural districts having the opportunity to select a section that was specificially designated as rural. I found that helped. Some of the students I had in general hygiene and physical education, in two-year state normal, when they went to the rural districts had no idea how to meet that situation. They had been trained suitably for a system in which they would have a special supervisor or someone on whom they could lean.

Chairman Bigelow: Miss McCray said something about that in another connection yesterday.

Mr. Walter G. Daniel, Director, Practice Teaching, Winston-Salem Teachers College, Winston-Salem, North Carolina:

From schools for teaching Negro teachers, most students go to rural schools and we are making an attempt in our two-year course to outline units of work. Our course in management and directed teaching is combined. "Hygienizing" the school is one of the first requirements, hence, we discuss that. Then we begin our observation work, using the schools of Winston-Salem.

As they go out to do their practice work, student teachers first observe what they are going to teach and they make reports on each unit of work. For example, they may have lighting or heating, and we find it works very well because at the end of, say, six weeks each girl has first a theory, then the observational work in reports, and then may begin teaching. She knows her theory and she has by observation come to have some consciousness of health conditions of the children.

One teacher has geography as a major assignment and I think the particular assignment was South America, and in

discussing that certain children will ask questions. Maybe some child may have known some person from South America or may know something of their labor problems. One child's mother had gone there rather recently. As the problems of health arose in South America, we took it as an opportunity for teaching health and that practice teacher was required to consult not only the teacher of geography, but the health workers in the school work.

We feel we are doing something to help each practice teacher to have some consciousness of the health problems.

Chairman Bigelow: How many students do you have in Winston-Salem Teachers College?

Mr. Daniel: About 280 persons majoring in primary education and home economics. We are trying to emphasize the four-year work and the number of students is increasing every year, but our two-year is larger than our four-year.

In our course in directed teaching we have one director and two assistants. Whoever had the theory course checks on the practical observation.

Chairman Bigelow: Are there any other questions or points to be brought up?

Dr. Moulton: I want to bring up one more point that Miss Brown touched on when she added to the essential subject matter, the question of big muscle activity. Even in our colleges we have big muscle activity for restricted groups, but we have not developed team games which are suited to the abilities and skills and strengths and needs of the restricted group, and often they are the ones who need the coöperation and the practice in team games even more than the favored few who make the team games.

So, I should like to urge that an effort be made to change rules or make up new games that offer the elements of coöperation, of team play, and would be suited to the interests and abilities, the strengths, of the restricted groups.

Chairman Bigelow: Keeping in mind that materials and activities for health instruction should include courses of study, physical education, lunchroom, text books, posters, en-

vironmental facilities, trips, have we neglected to discuss any of these?

Miss Edwards: We have been talking about charts and their use, and as I have gone around in the teacher training institutions and into the elementary and secondary schools, a thing that has interested me very much is the wide use, especially in the elementary and secondary schools, of a variety of such materials and devices as posters and charts. I object to the indiscriminate use of all these things and ask what place should the teacher training institution take in guiding, directing and helping the student teachers to form judgments in the selection of that material and its use?

Chairman Bigelow: May I ask to what extent these materials have been forced upon the school by representatives of publishers or manufacturers interested in putting out material which looks like health material, but is really advertising?

Miss Edwards: I think the pressure has come from the teacher. I was formerly a state supervisor of almost three hundred home economics teachers. They came from places where the school had no budget, were inexperienced, and on arriving in these places having no library facilities, had scoured far and wide for something to work with other than the text books that had been wished on them. At the same time these teachers had not been, I believe, guided sufficiently in the teacher training institution to know what to use, how to use it, and when to use it. They had collected the material which was offered free, because of not having money to buy any material, or a very small amount.

I was talking with some commercial people not long ago about the material given by commercial groups, and they said, "How can we prepare material that is going to be accepted by educators?"

I feel that educators should express their opinion of this material and state whether it is sound and in correct form to fit into the school situation.

Chairman Bigelow: We agree that the teacher training institution ought to prepare students to select such material.

Summary Points From the Discussions of the Section on Teacher Training

These summary points developed out of the discussions and committee meetings of the Section on Teacher Training. They represent the consensus of opinion of the group on certain phases of health service and activities and materials. Other topics were considered, but time did not permit sufficient discussion to reach definite conclusions concerning them.

A. *Concerning Health Service in Teacher Training Institutions:*

1. A teacher training institution should keep cumulative health records which should include the following information regarding the student from entrance to graduation:

The physical, mental, emotional, and social health, based on examinations at entrance.

Advice given from time to time by the physician and personal adviser.

Follow-up and results.

Absences from illness—causes, treatment, and follow-up.

Faculty observations especially with reference to mental attitude and social conduct.

2. The physical record should be made by the physician and nurse with the coöperation of specialists in physical education and laboratory techniques; the mental record, by one or more experts in psychiatry, or mental hygiene, or applied psychology.

3. The confidential mental and social health records and the main facts of the physical records, should be kept in a central office and be available for the use of the personal adviser. The health records should be available to members of the staff at the discretion of some official—physician, dean, or appointed adviser.

4. In addition to the dean and physician, each student should have a personal adviser who is tentatively assigned to the new student by the dean, according to the student's interest and characteristics.

5. Only those members of the staff who qualify because of their viewpoint, experience, common sense, emotional balance, and self-adjustment should be appointed as personal advisers.

6. Students should have the privilege of discussing with the dean, or another chief officer, the reasons which seem to make a change of adviser desirable.

7. Personal advisers should only be assigned to the number of students for whom they can adequately care.

8. The findings in the cumulative record should be used:
   In adjusting the student's load.
   In arranging the schedule in accord with the student's health.
   In planning the work in personal hygiene classes.
   In advising and encouraging students to improve their health and to overcome correctable defects before graduation.
   By the personal adviser in coöperating with the college physician in regard to any ill health of the student.

9. Records of physical and mental health should be carefully reported to parents, probably by the physician or the personal adviser communicating with the parent through the dean or principal.

B. *Concerning Health Materials and Activities and Problems of Organization:*

1. The health materials and activities should aim to meet definite personal and professional needs as revealed by the cumulative record.

2. Students should have a firm foundation in facts of the natural and the social sciences that have a bearing on health. Training in methods of teaching should follow study of subject matter, which should be selected and arranged with reference to professional needs.

3. Since important health education materials are found in so many fields, it is recommended that the programs for students of health education be in charge of a committee representing the important departments within the college. With regard to student activities, it is important that such a faculty committee coöperate with a student committee.

4. In two- or three-year training institutions, where it is impractical to offer regular semester or term courses in certain subjects such as eugenics and home nursing, short unit courses might be arranged with special reference to health education.

5. For the first year, an orientation science course with biology at the center, is recommended as a basis for later study in health education and as a background for the study of psychology, social sciences, home economics, and physical education.

6. In constructing courses in materials and activities for health education, the content of the best available health curricula for schools should be considered. However, the teacher training course should be broader and more extensive than would be required by the contents of any school curriculum. In short, the resources of teachers should not be limited to the requirements of curricula which will inevitably change.

7. The materials, activities, and methods considered in the teacher training courses should be adapted to the program of a cöordinated demonstration school. The student-in-training should get a perspective of the health program in all grades of this school.

8. For students expecting to assume responsibilities for health instruction in secondary schools, the teacher training institution should provide knowledge of materials and activities relating to health, especially with reference to needs of adolescents. It should offer special and general preparation at least equivalent to that required of teachers of science and other subjects in secondary schools.

9. Ability in judging, selecting, using and applying materials and activities according to the various age levels, situations, and individual differences and interests should be developed in the teacher training institution. The committee disapproves illustrative material that tends to counteract approved health teaching.

TEACHER TRAINING SECTION COMMITTEE

Dr. Maurice A. Bigelow, *Chairman*
Miss Margaret M. Edwards, *Secretary*

Miss Maud A. Brown	Miss Anette M. Phelan
Miss Lydia Clark	Miss Jessie Todd Prisch
Mr. Walter G. Daniel	Miss Elma Rood
Miss Edna Groves	Miss Irene M. Steele
Miss Mary L. Hahn	Dr. E. F. Van Buskirk
Miss Ethel M. Mealey	Miss Marion S. Van Liew
Dr. Fredrika Moore	Miss Mary May Wyman

HIGH POINTS OF THE CONFERENCE

James Frederick Rogers, M. D., United States Bureau of Education, Washington, D. C.

> "The task of bringing about these practices that make for health is comparatively simple if you go about it in a human, common sense way."

THE summarizing has been very ably done already by the chairmen of the sections and it remains for me to make a few general observations only.

As this kind of conference has not been held for some time, I have naturally looked for changes. I was delighted to hear comparatively little mention of standards and standardization. We have heard too much of these things. If you mean by them economy in ways and means, I have no objection, for we certainly need them. We are wasting an enormous amount of money and of time each year doing things which get us nowhere but which we take for granted and never investigate. We go hunting for defects when we really have not considered what defect is from a public school and public health point of view. We talk glibly about posture and posture work although our effort along this line practically goes for naught so far as attaining the ends we think we should attain. Health is not something that can be standardized, nor can the child be standardized, and every attempt of this sort leads to more harm than good.

Another notable figure in former meetings whom I am glad to find not quite so prominent is "science" or "scientific" in the sense in which these terms are commonly conceived. Science is a very slippery individual and has many aliases. You are bound to have dealings with him, but do remember that he is subject to change without notice, and keep in mind that, as Professor Keyser aptly said, he is only our "latest super-

stition" and does not deserve the awe and respect we often pay him.

Among those who appear more prominently than hitherto are the parents. In fact, in one meeting there was a parents' revolt of large dimensions against their treatment (and incidentally the treatment of their children) by the present educational factories.

I would like just to remark that although we parents do not know anything about children, especially our own children, we would like to be shown the compliment of being consulted occasionally as a matter of form.

Home Coöperation Essential

Healthwise, our efforts will get just as far as we go toward securing the coöoperation of the home, and not farther, for all of the practices which directly bear on health must be carried out in the home and under conditions for which parents are responsible. I was struck lately by a diagram in an article by Miss Rood, The School Nurse and Health Instruction, published in the "Public Health Nurse," which showed that the results of health habit teaching were directly in proportion to the degree of home coöperation.

The invitation of parents to attend physical examinations has been prominently mentioned here, although five years ago it was hardly dreamed of. I think that the embattled parents present will agree that we are more interested in the health of our children than in anything else, and if we do not always agree with the health specialists in what they are doing, it may be the best thing for the child.

I am glad that the teaching of health in secondary schools has been given prominence here. Such schooling is sadly needed. While we have made a great advance in school health work, it has been confined wholly to the lower grades. Saving for what carried over from earlier school experience, the high school pupils were better off forty years ago, for at that time physiology and hygiene were taught to practically all high school pupils in all states. That teaching was good and the textbooks were good.

Here I am a heretic, of course, but I have recently been looking over the most used textbook of that day, and I find it just as interesting and just as reliable (considering the superstitions that went by the name of science then) and just as stimulating.

Health and Ambition

At the present time, not more than 15 per cent of high school pupils are taught the miracle of their construction, and the reason for this is the millstone of College Entrance requirements hung about their necks, or the necks of the principals. Of course the colleges do not care whether one knows anything about his bodily machinery and how to keep it in its best running condition. More important at high school age than the teaching of physiology is the getting somehow into as many of these young lives as possible the ambition to be somebody and do something, and with it the hint that a person is not likely to get any farther in his chosen way than his bodily machinery permits. If the student gets these ambitions and this idea, there are many sources of health information which he will eagerly search for himself.

A writer in the "Contemporary Review" remarks that the word "health" has undergone a sad degeneration. Originally it meant or included beauty and goodness. I wish we could all do more to bring the word back to its original significance by stimulating a little more the quest for beauty and goodness in their larger meanings, which quest alone makes the highest health possible and makes any health worth having.

As regards textbooks, they will some time be written according to the interests of high school students. The first chapter will be on reproduction and the embryological development of the human body. This is what these pupils want most to know about, and should know about, and if you start in this way their interest does not flag. I have taught by this method and I know what I am talking about.

As for physical examinations, there are some reasons why the high school students need them more than those who are younger, but I will not take the time to go into this subject.

The high school student will get what he deserves in the

way of health service and instruction when health is taken seriously by educators and especially by the colleges. I was asked recently by the dean of education of a university to talk to one of his classes, and I remarked that the health of the child was not taken very seriously by some schools. He said, "If there is any school that takes health seriously it must be up in heaven."

Education and Actualities

Just before I left the Bureau I received a copy of the annual report of the Minister of Education for New Zealand, and I was struck by this sentence: "All schools tend to draw away from the life of the people and to follow lines of study that grow more and more divergent from the actualities of life." It is our business as health workers to try to pull education back into touch with life if we are to have that life more abundantly.

But really, we are making progress healthwise. I came across recently a remark of old Roger Bacon away back in the thirteenth century which gives us some exact information on this subject. He said, "Very rarely does it happen that anyone pays sufficient heed to the rules of health. No one does so in youth, but sometimes one in three thousand thinks of these matters when he is old and approaching death." I think that in the twentieth century perhaps one in *two* thousand thinks of such matters and even before he is old.

Mental hygiene has bobbed up at this meeting. This is an exceedingly vague term. I am reminded of the fine definition of psychology given by a Yale student some years ago. He said, "Psychology is a damned small candle held over a damned dark abyss." Now to my mind the new psychology does not throw a much brighter light than the old, and the abyss is still there.

Someone has suggested that we need more psychologists in schools in order to make them mentally more healthful. A man who has suffered all degrees of mental ill health to the extent of what we label insanity remarks that "what the insane person most needs is a friend," and that is what every school

child most needs. To fully understand the child and to fully befriend him, the teacher must know the child's parents and his home life. The most successful teacher of health I know of does this, and each child recognizes in her a friend.

There has been evidence in this conference that the various specialists do not take themselves quite so seriously as in times past. Every specialist (under which title I, of course, include myself) is more or less abnormal or ill balanced. As John Stuart Blackie said, "Specialists have a tendency to encroach upon nature, and not being content with being helps to her, aspire to be her guide and her governess."

Simplicity and Health Teaching

As a fault of their schooling, most specialists in health work (present company excluded) are loaded to the guards with theory. Apparently few of them have had much real acquaintance with the child. They would not for a moment agree with Sir George Newman that the practices that make for health are very few and very simple, and they have been trained to consider the task of bringing about these practices as the most complicated thing on earth, when it is comparatively simple if gone about in a human, common sense way.

One thing that has been most encouraging to me at this meeting is that the denominational lines appear to be breaking down. I have seen those whose affiliation is with the nurses, sitting in the same pew with those who belong to the sect of home economists. And I have observed high-church health educationalists on the same side of the aisle with low-church physical educationalists. Perhaps the millennium is near.

These conferences are always a source of good to all of us. Even if we fail to get something new or startling out of them, we can go home feeling that this fact would seem to indicate that we are working along the right lines. Let us hope that it does not signify that we are becoming fossilized and ought to go out of the business.

I am sure the pulses of all of us have been quickened by this conference and that we shall all do better work in our respective fields.

AN EDUCATIONAL PERSPECTIVE

Frederick G. Bonser, Ph. D., Professor of Education,
Teachers College, Columbia University, New York

"Work, citizenship, and play are all conditioned by the quality of functioning of body and mind."

IT is my philosophy that the purposes of life, health, and education are one. The end and aim of all are growth, and the enrichment of human experience. Work, citizenship, and recreation are the conditioning means of this growth and enrichment, the activities in which we participate to realize the satisfactions and enjoyments which life may afford. Work is not an end in itself, but a means by which we are supplied with the food, clothing, shelter, and other commodities which contribute to our creature comforts and our spiritual needs. Citizenship is not an end in itself, but a means by which we join our individual endeavors in coöperative enterprises which enable us more efficiently to provide for creature comforts and spiritual satisfactions. Our recreative activities are entered upon as means of enjoyment and enrichment of our sensibilities, intellects, and emotions when we are free to give them play for the pure satisfactions which they give us. All of these activities—work, coöperation, play—are required for the balance of living that constitutes the efficient and happy life of body and spirit which we conceive as ideal.

We believe life to be a good, a blessed opportunity for physical and spiritual enjoyment. If life is a good thing, then whatever promotes and prolongs it under conditions that do not deprive it of its powers of enjoyment is also good. We believe that we have that knowledge of life and its possibilities, to portray conditions under which it may be a blessing through as many years as the body may sustain an active, normal mind, even if these years be twice the age-old allotted

span of three score and ten. With those means to satisfy needs for food, clothing, shelter, communication with the current world of affairs and events, and the resources of various forms of spiritual recreation all available, we believe one might live on through scores of years beyond middle age and find that the satisfactions would far outweigh the burdens. Basic to our philosophy is this belief that life is a good, and that to live long is a privilege and a blessing.

How Health Contributes

But richness and length of life are both conditioned by the qualities of life. In the long run, efficiency, satisfaction, and enjoyment all depend upon the healthful and normal functioning of body and mind. Efficiency and enjoyment of work are not possible in a body that is malformed, diseased, undernourished, or infected. Coöperative activities of citizenship cannot be at their maximum in one who has a torpid liver, an abscessed tooth, or a superacid digestive tract. Recreational activities turn out to be melancholy failures when glandular and nervous activities are abnormal. Work, citizenship, and play are all conditioned by the quality of functioning of body and mind. Health, biological, psychological, and perhaps sociological, is a factor that affects our thinking, our feeling, and our acting, our behavior in waking or sleeping, not less than 100 per cent of the time.

The quality of life then, and the worth of life prolonged, are conditioned in large part by health.

This is a commonplace, yet we have made but a small beginning in forms of health education that enter into the behavior controls of our people. Beginnings are encouraging and if we measure the present by the conditions of a few years back, or a generation or two back, we can see tremendous gains. Yet if we think of what is ideal, possibly we feel that little more than a beginning is made.

We have no time for statistics but of course a great many could be given about loss of life through accidents, infant mortality, maternal mortality, and a great, great many more to show that a great many children are born in the world who

do not live as long as they might if they lived, while they do live, more wisely, and were cared for in a better way.

Reference might be made to the recent "Health Inventory of New York City". What is true of these 6,000,000 people in and about New York is true of the 120,000,000 in this country.

It was shown that in New York in a population of 6,000,000, from 125,000 to 200,000 are sick in bed every day of the year. One thing that was pointed out concerns health education very fundamentally; namely, that while about $25 per capita is spent in New York City per year for attempting to cure the sick, only about $1.42 is spent for the prevention and control of disease. That is, only one-eighteenth of the money is spent for prevention of disease that we use in trying to take care of sickness.

Everyone will probably agree that we all ought to live long, and can so live that it will be worth while to live as long as we possibly can. But when it comes to questions of method, then we divide more or less into schools or groups or camps.

Knowledge and Health

Weakness in our health education has been probably of the same type as that existing in all education. We have had a wrong philosophy of education, a poor philosophy, and a false psychology. We have pretty largely depended upon knowledge alone. There has been little development of health habits and practices reinforced by health knowledge.

When I went to the elementary schools in Illinois, we were required by law to study physiology and hygiene with particular reference to the use of alcohol and narcotics. I could recite the bones of the body now, and we had a great deal of anatomy and physiology, but that knowledge did not seem to have anything to do with health. More recently even in teaching health the work has been isolated from life situations which required knowledge as a means of helping to make a situation understandable or intelligible.

The new and more effective philosophy and psychology are well condensed in some of the criteria used in this conference

for discussing the development of health programs. Put in positive form, some of these criteria maintain:

That health activities and materials should be identical with or related to situations significant to the pupils.

That spontaneous and self-elective motives should be guided and directed to fullest realization within the social group.

That activities and materials should lead into further activities or materials, and into wider interests, understandings, and practices.

That activities and materials should secure the coöperation of parents, local health agencies, and all members of the school and social community.

That activities and materials should provide for and be adapted to the differences and needs of individuals and groups.

That appropriate individual and group conduct should emerge as a part of and as a result of the activities and the use of health materials.

All put the emphasis upon activity directly related to what is going on in communities and in homes in regard to children. The immediate emergency and what is given to children of a health nature for the improvement of conduct receives emphasis.

These criteria rest upon the conception that education is a process of living with increasing efficiency and intelligence through learning to do immediately whatever will give the greatest direct values through practice, and, as far as possible, through understanding the meaning of such practice.

It is a conception of education that regards conduct as emerging from the responses to motivated situations by use of a combination of habit, emotion, and intellect, with habit probably dominating in early life. These situations afford the opportunities for instruction and for upgrading health behavior tendencies. Through practice of an activity, habits and action tendencies are developed. "We learn the responses we make."

Habit, intellect, and emotion all have to be considered. Habit is probably to be emphasized most with young children, but is important all the way through.

Matters of personal and social hygiene, such as care of teeth, use of the handkerchief, development of posture, times

and conditions of taking rest and sleep, bodily cleanliness, and many other ways of behaving which affect health can only be built into daily conduct by such practice, from infancy up, as will make them the normally proper and satisfying things to do. We have to rely largely on habit and appreciation for a long time. Given the conditions aright, the nervous system practically takes over many such activities as its responsibility without much conscious direction. Habits as far-reaching as health habits cannot be developed through reference to one short period a day.

Living Health as a Matter of Course

It should be evident that many desirable habits can only be best and most easily established by including them as parts of normal, daily life activities and situations, not as activities added to normal behavior.

To make issues of food likes or dislikes of young children usually results in a long-drawn contest which is often lost almost before it is begun. Most of these things that are to be most directly and easily established in the habits and lives of children should never be made issues, but children should come to live them as matters of course, just as they do with many other things that come to be the normal practices of early life.

Herein lies the tremendous importance of parental education, relative to the care of the bodies and minds of young children. While at first we have to rely upon development of habits and guidance of emotions, the intellects of children are not dormant. Questions of what for, how, and why, begin to come early. Knowledge which they can appreciate and use should be given as fast as they can take it.

A six-year-old cannot understand why leafy vegetables are good for him, but he can be helped to understand why he should not crack nuts with his teeth, and why he should look both ways before crossing a street. He can be given partial knowledge about why he should have certain food elements each day, why he should wash his hands before eating, and

why he should sleep in a room with open windows,—knowledge that is true as far as it goes.

As ability develops through the elementary and high school years, more knowledge can be added to rationalize habits and practices as children can take and use it.

School Subjects Touching Life

Now these immediate contacts with life are represented, in the better schools of today, very largely by industrial arts, household arts, nature study, and physical education. The better type of industrial and commercial geography will come in, and perhaps the better type of social science, but natural science, industrial arts, and physical education are more nearly representative of what is going on in the outside, normal world than are any of the other subjects, at least as we have been teaching them.

Industrial and household arts deal with food, shelter, clothing, and other materials which we use in maintaining daily life. There are many problems connected with these through which children may learn many valuable facts relating to health.

We may say that in this field of practical arts three graces, or three wisdoms, stand out as dominant in making the studies worth while: health, economy, and art or æsthetics; and the greatest of these is health. So that throughout the study of food, clothing, shelter, utensils, and so forth, one of the dominant aims, that to which the others should probably be subordinated, is the health aim, or the health purpose.

From the very beginning of school life, work may be taken up in connection with food studies, the luncheon of the children, the tea parties that they may have. Foods in the community may be studied, those used in the homes and those found by visits in stores or in the play stores, the study of sources of foods, those coming from the local community and those imported from other parts of the world. In connection with all of these studies, questions of balanced dietaries for luncheons and other meals will be of interest, food quantities by calories in terms of weight, height, age, and activities of

the children themselves, sources of vitamines and variations with seasonal changes, the problems of beverages and confections, eating between meals, substitution of inexpensive for expensive foods having corresponding food values. Out of these things will emerge constantly questions that relate to health matters.

With reference to clothing and shelter, there are questions of health that relate to such things as textiles, shoes, and wraps, which may be taken up in connection with clothing for different seasons of the year, for different purposes, and for use in different parts of the world.

Sanitary equipment and home environment is another constant source of problems leading indirectly to questions of health and health values.

Child Impulses to Utilize

In this kind of study the health questions need not be isolated or separated from situations in which these health values are significant or important. The constructive and investigative impulses of children are always ready to be utilized in such things as building play houses, stores, farms, and cities, dressing dolls, costuming for plays or for illustrating peoples of other lands and times, investigations of how we are supplied with foods and clothing materials from other parts of the world, how what we have has developed from simple beginnings, and how supplies are made from raw materials today.

The questions that make up the contents of the practical arts field have two things that are the very strongest force in making these practical activities of educational work: One is the constant contact and mention of these in everyday life, and the other is the constructive and investigative impulses of children.

Just to emphasize a little more clearly what I mean here, may I just refer to one unit of study that one might take up with reference to one article of clothing, shoes. The study of shoes may be developed in connection with the work in history, or commercial and industrial geography, and will be

of great interest to children in the intermediate grades. We can canvass the world and indicate the varieties in shoes (sandals, moccasins, wooden shoes, slippers, leather shoes, boots). I have known children to get together an exhibit covering a large wall space, showing the different materials out of which all kinds of foot wear are made, and showing how we go almost to the ends of the earth for these materials, and that the seas even make their contributions.

The use of books and current magazines, visits to local shops and stores, form a natural part of this kind of investigation. Shoes are found with no heels, with low heels, and with high heels. There are shoes with strong springs and with weak springs. There are shoes with very different types of lasts, and we find shoes that are spoken of for particular health values.

Why these different types of shoes? This will lead into a consideration of anatomy and physiology of the foot. I saw a most interesting demonstration of this kind of study at one of the higher type of store having a shoe department. A physician was going over with shoe clerks questions of anatomy and physiology of the foot and the effects of ill-fitting shoes upon health in general; what could be done with a foot more or less already deformed, toward fitting shoes which would be reasonably comfortable; how to fit shoes to prevent difficulties. It seemed to me if they could afford to teach clerks how to fit people with shoes, why was it not exceedingly more important to teach this to those who wear shoes?

Health and Shoes

These questions then all may give a background of interest, a background of breadth and acquaintance that by and by comes to focus upon a few questions of personal interest such as: What kind of shoes are the best for me? One of these questions that I will surely think of will be the health question. There are many historical facts that as a background will give shoes a different interest to children. One phase that certainly will stick will be the personal effect that the wearing of certain kinds of shoes will have on the wearer.

As for shoes, so for other articles of clothing, for foods, for utensils and whatever else has a bearing upon health. What is done takes a hold upon interest and develops a vital understanding and appreciation of much that is of personal and community importance in home and neighborhood. Applications to the child's own needs are provided in ample variety to make the instruction affect personal practice. Such studies in the elementary school reach out to science, both biological and physical, to industrial and commercial geography, history, physical education, and fine art. By the end of the elementary school, children may know a good deal about germ life, insect pests and controls, food preservation, and the sanitary care of the home and community.

In science work, I would emphasize two types of values: One is the direct value of the facts relating specifically to health behavior, and the other is the development of a scientific attitude of mind. Perhaps one of the greatest evidences of lack of culture in people is a general lack of knowledge of sciences and their application.

The Scientific Attitude

Lack of a scientific attitude keeps people from thinking intelligently about matters of health. Our schools, both elementary and secondary, are woefully and deplorably weak in their science work, and teacher training institutions are even worse. We have not outgrown the notion of the Middle Ages that teaching children to read and write and cipher is education. We fail rather signally to appreciate the value of science in everyday life, and we do about as badly with reference to the social sciences which relate to coöperation and group control.

Relationship to the Fine Arts

There is also a relationship to the fine arts. In two respects, art or æsthetic interests affect behavior relating to health. Beauty of person and of surroundings probably has a wholesome, buoyant, tonic effect upon general well-being,

though this has not been demonstrated as a scientific truth. Therefore it is desirable to educate children and young people in the choice, use, and control of clothing, and such household and community elements of environment as make for beauty, so that they will appreciate beauty and know how to achieve it.

The other aspect of beauty is the frequent opposition of beauty and health values. Can beauty of complexion be built into the body by appropriate food, rest, sleep, cleanliness, and exercise, or must it be applied from the outside from a box or a bottle?

Can clothing be wholesomely healthful and at the same time beautiful? Must a shoe that is artistically satisfying be uncomfortable and unhygienic? The belief is very common that with conditions as they are one value or the other must often be sacrificed. When this is true, is there some way to make the choice always in favor of health? Nothing but education to a point which will make the consumer refuse to purchase or use articles that are in any way injurious to health will change this condition.

There is a great deal here in the matter of art education with reference to personal beauty and beauty of adornment and surroundings which is often omitted from consideration of the arts in elementary school, high school, and teacher colleges. When art comes into its own in the matter of helping us to live more beautifully, it will surely have a very direct health value.

Through play, games, sports, and other forms of physical education, strong motives may be evoked for knowledge and practices that will help most to produce strong, alert, steady, flexible, and responsive bodies and minds.

The Part of Mental Hygiene

Need for developing every conception and practice in a way that will be invigorating and stimulating to mind as well as body is evident. Whenever a morbid note enters, the work may be more harmful than helpful. Mental hygiene is no more to be neglected than physical. There is a continuous need for

building up a sound, wholesome philosophy of life, attitudes which stimulate one to do his intelligent best, and to make reconciled adjustments to what can in no way be changed. Early in life, even before the child is old enough to go to school, he can be taught to keep a healthful, wholesome attitude toward whatever goes on.

It should be apparent that health education is an integral and vital purpose in all of those studies which contribute to a sound interpretation of the purposes, conditions, and meanings of life as a whole. Industrial arts, household arts, science, geography, history, and social science, art, literature and music should all be levied upon for their contributions. This does not mean that all health instruction is to be incidental. There are times and situations for specific treatment, using materials from all sources.

I think we cannot depend entirely on incidental instruction. Although we may unify our work so that large units of work may have aspects in common, at times we will have to pull out each one of these and give special emphasis and attention to bringing together the things that bear upon a particular field. It is a matter of constant attention, just as conscious and constant as the attempt one must make to keep a child's English up to a high standard.

All this may seem very commonplace. My defense is that health is most directly and vitally involved in these very activities of work and play. It is not a thing apart, but a quality of functioning at all times. Only as we know and appreciate the purposes and meanings of these activities, and of our responsibilities for our ablest share in their promotion, can we understand the obligation of keeping our bodies and minds at a high stage of working and thinking efficiency. It is out of such life activities that we may develop pragmatic ideals, dynamic purposes, and a wholesome philosophy for living at our best. Through mastery of the details that make up life we may build up a perspective that comprehends the growing good achieved by man and the transcendant enjoyment of healthful activity in efficient achievement. In turn, from this conception we realize the importance of the thou-

sand and one details that contribute to bodily and mental health from day to day, month to month, and year to year.

For those who are preparing to teach, not only should all of these details which should gradually build themselves into lives of the elementary and high school children be considered from the teaching point of view, but the student teacher should go much more deeply into the whole matter of health as a social problem and a social asset.

Teacher-training classes should secure pertinent facts and should discuss frankly and scientifically, not prudishly or morbidly, the problems of sex and social hygiene, eugenics, birth control, marriage, divorce, and other kindred problems which vitally concern the health of the individual, the home, the community, and our national life as a whole. There are many socially important questions, significant from the standpoint of national health, that we are simply ignoring in our schools and colleges.

We live in a competitive age. Viewing life in the centuries to come, we can readily foresee the downfall of those peoples who permit the wasting away of their health and strength, and the ultimate survival of those who place a high premium upon sound bodily and mental health. Eugenics and euthenics will do far more to determine the relative fruitfulness, culture, and wealth of nations a hundred years from now than will armies, navies, and airplane squadrons.

Social Responsibility an Item

Teachers should be sufficiently enlightened and intelligent to develop a large social responsibility and intelligence in both their pupils and the parents of these pupils. If they could but fully appreciate and teach that it is scientifically true that unless one seeks first the kingdom of health little else will be added to him, they would justify by this alone the social support which they receive. But to do this they must be informed and intelligent about bodily and mental health, individual and social, and they must know how to teach both children and parents to know what should be done to maintain

health and long life and to do it. A health program in any community will have to consider parental education very nearly if not quite as important as school education. Coöperation of school, home, and community is essential.

As life develops from infancy into childhood, adolescence and maturity, teachers and parents should know the needs in terms of both the unfolding physical and mental functions on the one hand, and of environing conditions favorable to normal growth on the other. Growth of body involves problems of teeth, of nose and throat, eyes, ears, skin, bones, posture, feet, heart, lungs, digestive tract, nervous system, and glands which require care for their normal and efficient functioning. Much of this care lies in providing appropriate food and clothing, sanitary surroundings, adequate rest and sleep, and wholesome play. Quite as important also is the opportunity for mental growth that elicits the initiation and development of intellectual, emotional, and action tendencies toward increasing satisfaction and achievement in an enlarging individual and social life.

It is the health problem of teachers, parents, and medical counselors to watch these various forms of growth, to guide them, and to provide the conditions which will most effectively promote them. Medical examinations for normal diagnosis and for revealing needs for corrective procedures will soon come to be recognized as a regular, periodic part of such care. Medical examinations as well as physical and mental examinations will soon come to be the basis for determining the individual programs of students in high schools and colleges. By such continued and watchful care, together with that education of each learner which will make him the self-directive, intelligent guardian of his own physical and mental well-being, may we hope to develop a world of well people as far as it is humanly possible to do so. As this "kingdom of health" is achieved, then will be possible the full enjoyment of buoyant life itself, and of those satisfactions of spiritual self-realization for which life is the opportunity. Our achievements as a people, economically, socially, culturally, and ethically, depend upon the quality of our health.

Health an Enrichment of Life

In conclusion, this discourse has had as its purpose to indicate the unity of health education and daily life activities, both as lived outside of school and as represented by other school subjects. To reiterate the proposition with which I began, it is my conviction that life is a good, and that whatever will keep it functioning most effectively and perfectly will both enrich it as it unfolds and tend to prolong it. Ethically the most ultimate criterion I can conceive for determining whether an act, thought, or feeling is good or bad is whether, in the long run, it makes for group survival or against it. The same measure applies to activities with reference to health. It is therefore also my conviction that whatever we do or think or feel has a health quality, making for or against the promotion of the free, normal functioning of body and mind. Because of this health quality, all studies, which after all are but representative of different aspects of life, contribute situations and make contributions associated with health. Since studies too often are but secondhand representations of life, emphasis has been placed upon continuous and continued contact with the real, twenty-four hour activities of children in school, home and community, and the use of these contacts for their problems and values in making health education a matter of continued increase in efficient living.

Since mind and body influence each other fundamentally and vitally, emphasis has been placed also upon the development of a wholesome mental tone and the enjoyment of both bodily and mental activities as of large importance in health education and the maintenance of health. Mental hygiene seems to be no less important than bodily hygiene. Because, also, of the social nature and influence of bodily and mental conditions as they affect family and group life, and as they strengthen or weaken national life as a whole, stress has been laid upon social hygiene with its many and far-reaching phases.

In short, the place of health in life and education, seems to be so much a quality of everything, so vitally concerned with our every act and thought and feeling, that we are moved

to say that there is no part of a desirable education which does not somehow contribute to the wholesomeness of bodily or mental life. Among all of the activities of life, however, there are many specific factors which condition the functioning of body and mind in free and normal ways. These are the more direct concern of most phases of health education—keeping the body and mind so operating as highly efficient biological and psychological organisms that they may do their work well and be reinforced by the satisfactions and enjoyments of doing this work, whatever it may be.

Health education is therefore education in conditioning and enjoying efficient life and thereby prolonging life in efficiency and enjoyment. Efficient life is to be maintained and prolonged to the end that it may afford opportunity for service, for spiritual growth, and for the sheer enjoyment of the beauty of experience which wholesome life is in itself.

THE INTERVENING COMMITTEE

As Appointed at the Sayville Conference

A recommendation from committee deliberations at the Sayville Conference was that the Chairman of the Sayville Conference appoint an Intervening Committee to promote plans for the next conference, and that the next conference be held at Sayville, within the year. The committee appointed included:

Dr. John M. Sundwall, *Chairman*

Dr. Thomas D. Wood	Miss Mary E. Murphy
Dr. Bess V. Cunningham	Miss Anne Whitney
Dr. Edna W. Bailey	Mr. J. E. Rogers
Dr. Maurice A. Bigelow	Miss Ethel Perrin

AN EXCHANGE OF GREETINGS

With the Philippine Islands

The Fifth Health Education Conference held at Sayville received greetings from the First Health Education Conference held in the Philippine Islands, and sent a greeting in reply. This exchange of greetings is of much significance, marking as it does a milestone in the advance of child health education in a new field.

The Greeting Received

The members of the First Health Education Conference held in the Philippine Islands, under the leadership of Miss Sally Lucas Jean and Miss Edna A. Gerken, send warm greetings to the members of the Health Education Conference, held under the auspices of the American Child Health Association of the United States, with the sincere assurance of their support in the cause of health promotion, and with the trust that the zeal for it shall never lag until the people of the world shall be enjoying more vigorous, more abundant health.

Signed at the city of Baguio, Mountain Province, P. I., April 19, 1929. The committee:

Ursula B. Uichanco, *Chairman*

Victoria C. Ciudadano	Isabelo Tupas
Wilhelmina S. Monto	Bertha E. Soderquist

The Greeting Sent

WHEREAS the Fifth Health Education Conference, arranged by the American Child Health Association, has during its session received the greetings of the First Health Education Conference of the Philippine Islands, and whereas the American Conference is touched and pleased with this token of fellowship:

BE IT RESOLVED that the thanks of all the members of this Conference, at Sayville assembled, be sent to the teachers and other health workers of the Philippine Islands, who sent so clear and interesting an account of their First Conference.

BE IT RESOLVED ALSO that we do hereby express our admiration for the work accomplished by the Baguio Conference, as evidenced by the report received, and voice our belief, founded on our own experience, that this and future conferences on health education will greatly aid in directing into right channels the health program of the schools of the Philippine Islands.

BE IT FURTHER RESOLVED that a copy of this resolution be sent to Miss Edna Gerken for transmission as she may choose to the officers and members of the late Baguio Conference.

Unanimously approved and signed, on behalf of the Conference, by an appointed committee:

Anne Whitney, *Chairman*

Maurice A. Bigelow — S. J. Crumbine
Bess V. Cunningham — Edna W. Bailey
John M. Sundwall

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